

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEBRASKA

MICHAEL S. ARGENYI,

Plaintiff(s),

vs.

CREIGHTON UNIVERSITY,

Defendant(s).

Case No. 8:09cv341

**ORDER ON  
FINAL PRETRIAL  
CONFERENCE**

A final pretrial conference was held on the 22nd day of July, 2013. Appearing for the parties as counsel were Mary Vargas and Dianne DeLair for Plaintiff and Scott Parrish Moore and Allison D. Balus for Defendant.

**(A) Exhibits.** See attached Exhibit List.

**(B) Uncontroverted Facts.** The parties have agreed that the following may be accepted as established facts for purposes of this case only:

1. Defendant is a "place of public accommodation" for purposes of the Title III of the Americans with Disabilities Act, 42 U.S.C. ("ADA").
2. Defendant is a recipient of Federal Financial Assistance for purposes of Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794 ("Section 504").
3. Plaintiff has a "disability" as defined by the ADA and Section 504.
4. Plaintiff was admitted to Creighton University School of Medicine and has successfully completed his M1 and M2 years using auxiliary aids and services he provided himself.

5. Plaintiff requested and was granted a leave of absence after he completed his M2 year pending the outcome of this case.
6. Argenyi paid approximately \$51,002.50 for auxiliary aids at Creighton University during his first year of medical school.
7. Argenyi paid approximately \$59,719.12 for auxiliary aids at Creighton University during his second year of medical school.

**(C) Controverted and Unresolved Issues.** The issues remaining to be determined and unresolved matters for the court's attention are:

**Joint Statement of Controverted Issues:**

1. Whether any of parties' pending Motions in Limine should be granted;
2. Whether Plaintiff's pending Motion for Partial Summary Judgment should be granted or denied;
3. If liability is found against Defendant, whether Defendant acted with "deliberate indifference" in refusing to provide auxiliary aids and services to ensure effective communication.
4. If Defendant is found liable, what damages, if any, should be awarded to Argenyi.
5. If liability is found against Defendant under Title III of the ADA and Section 504, what injunctive relief, if any, should be awarded (to be determined by the Court).

**Plaintiff's Statement of Controverted Issues:**

1. Whether Defendant violated Title III of the ADA and/or Section 504:
  - a. Whether Defendant provided the auxiliary aids and services necessary for effective communication;
  - b. Whether Defendant is entitled to assert and has proved that the provision of the needed auxiliary aids and services amounted to

an undue burden when taking into account the overall financial resources of the Defendant.

**Defendant's Statement of Controverted Issues:**

1. Whether Defendant violated Title III of the ADA or Section 504:
  - a. Whether Defendant failed to provide Plaintiff a necessary reasonable modification and/or auxiliary aid or service;
  - b. Whether the modifications and/or auxiliary aids and services requested by Plaintiff that Defendant did not provide were actually necessary to afford Plaintiff access to a medical education;
  - c. Whether making the modifications requested by Plaintiff and/or providing the auxiliary aids and services requested by Plaintiff would fundamentally alter the nature of the medical education offered by Defendant or would result in an undue burden upon Defendant.
2. The parties disagree as to the appropriate legal standard for deliberate indifference.

**(D) Witnesses.** All witnesses, including rebuttal witnesses, expected to be called to testify by plaintiff, except those who may be called for impeachment purposes as defined in NECivR 16.2(c) only, are: See Attached Witness List.

All witnesses expected to be called to testify by defendant, except those who may be called for impeachment purposes as defined in NECivR 16.2(c) only, are: See Attached Witness List.

It is understood that, except upon a showing of good cause, no witness whose name and address does not appear herein shall be permitted to testify over objection for any purpose except impeachment. A witness whose only testimony is intended to establish foundation for an exhibit for which foundation has not been waived shall not be permitted to testify for any other purpose, over objection,

unless such witness has been disclosed pursuant to Federal Rule of Civil Procedure 26(a)(3). A witness appearing on any party's witness list may be called by any other party.

**(E) Expert Witnesses' Qualifications.** Experts to be called by plaintiff and their qualifications are set forth in the attached materials.

Plaintiff requests that the Court allow the submission of supplemental expert qualification materials no later than five (5) days before trial.

Defendant objects to any supplemental expert qualification materials as the deadline for supplementing expert materials has long past, discovery has closed, and such a late disclosure would be extremely prejudicial to Defendant.

**(F) Voir Dire.** Counsel have reviewed Federal Rule of Civil Procedure 47(a) and NECivR 47.2(a) and suggest the following with regard to the conduct of juror examination:

The parties request that the Court allow the submission of voir dire questions no later than five (5) days prior to the first day of trial (i.e. August 16, 2013) and that the Court conduct a preliminary examination of prospective jurors, with counsel for both parties asking follow-up questions.

**(G) Number of Jurors.** Counsel have reviewed Federal Rule of Civil Procedure 48 and NECivR 48.1. Plaintiff suggests that this matter be tried by a jury composed of 6 members. Defendant suggests that this matter be tried to a jury composed of 12 members.

**(H) Verdict.** The Plaintiff will stipulate to a less-than-unanimous verdict. The Defendant will not stipulate to a less-than-unanimous verdict.

**(I) Briefs, Instructions, and Proposed Findings.** Counsel have reviewed NECivR 39.2(a), 51.1(a), and 52.1, and suggest the following schedule for filing trial briefs, proposed jury instructions, and proposed findings of fact, as applicable:

Unless otherwise ordered, trial briefs, proposed findings of fact, and proposed jury instructions shall be filed five (5) working days before the first day of trial (i.e. August 13, 2013). Objections to proposed jury instructions shall be filed two (2) working days before the first day of trial (i.e. August 16, 2013).

**(J) Length of Trial.** Plaintiff's Counsel estimates the length of trial will consume not less than 3 day(s), not more than seven (7) day(s), and probably about 4 day(s).

Defendant's Counsel estimates the length of trial will consume not less than 3 day(s), not more than four (4) day(s), and probably about 4 day(s).

**(K) Trial Date.** Trial is set for August 20, 2013 in Omaha, Nebraska.

**(L) Demonstratives.** Any demonstrative is to be disclosed to the opposing party by 9:00 a.m. on the business day before it is intended to be used.

**(M) Witnesses.** The parties agree to identify witnesses to be called to testify by 9:00 a.m. on the business day before they will testify. Witnesses may be removed from but not added to the list by 5:00 p.m. the business day before the witnesses will testify.



MICHAEL S. ARGENYI, Plaintiff

By: s/ Mary C. Vargas  
MARY C. VARGAS (MD # 14135)  
MICHAEL S. STEIN  
Stein & Vargas, LLP  
5100 Buckeystown Pike, Suite 250  
Frederick, MD 21704  
(240) 793-3185  
Mary.Vargas@steinvargas.com

/s/Dianne D. DeLair, #21867  
Disability Rights Nebraska  
Federal Trust Building  
134 S. 13th Street, Suite 600  
Lincoln, NE 68508  
Phone: (402) 474-3183  
Fax: (402) 474-3274  
Email: dianne@drne.org

***Attorneys for Plaintiff***

CREIGHTON UNIVERSITY, Defendant,

By: s/Scott P. Moore  
Scott Parrish Moore (NE # 20752)  
Allison D. Balus (NE # 23270)  
of BAIRD HOLM LLP  
1500 Woodmen Tower  
Omaha, NE 68102-2068  
Phone: (402) 344-0500  
Fax: (402) 344-0588  
spmoores@bairdholm.com  
***Attorneys for Defendant***

BY THE COURT:

  
\_\_\_\_\_  
F.A. Gossett, III  
United States Magistrate Judge

DOCS/1197272.4

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEBRASKA**

MICHAEL S. ARGENYI,

Plaintiff(s),

vs.

CREIGHTON UNIVERSITY,

Defendant(s).

Case No. 8:09cv341

**PARTIES' JOINT  
TRIAL EXHIBIT LIST**

Trial Dates:

\* Objections

Materiality - M Hearsay - H

Relevancy - R Foundation - F

Authenticity - A Other - O

EXHIBIT NO.	DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
1	Letter from Michael Argenyi to Michael Kavan March 23, 2009, and attached Request for Accommodation and attached audiograms dated March 4, 2009		X			
2	Email chain Michael Argenyi and Michael Kavan April 1, 7, 8, 2009	P	D			
3	Email Michael Argenyi to Michael Kavan April 24, 2009		X			
4	Letter from Michael Kavan to Michael Argenyi May 18, 2009	P	D			
5	Letter from Michael Argenyi to		X			



EXHIBIT NO.	DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
	Michael Kavan May 26, 2009					
6	Letter from Michael Kavan to Michael Argenyi June 23, 2009	P	D			
7	Email Michael Argenyi to Michael Kavan July 15, 2009		X			
8	Class Schedule M1 August 2009	X				
9	Email Michael Argenyi to Michael Kavan September 1, 2009		X			
10	Email from Michael Argenyi to Michael Kavan September 15, 2009, and attachment Letter from Esther Argenyi to Michael Kavan		X	M, H, R, F, A, O		
11	Email Michael Argenyi to Michael Kavan September 21, 2009		X			
12	Email Michael Argenyi to Michael Kavan September 24, 2009		X			
13	Letter from Richard Okamoto to Amy Bones October 30, 2009		X			
14	Email Chain Jodi Lange and Rebecca Cory October 30, 2009	X		M, H, R, F, A, O		
15	Email Chain Jodi Lange and Dimitri Azadi October 30, 2009	X		M, H, R, F, A, O		
16	Letter from Dr. Backous and Stacey Watson to Michael Kavan April 10, 2009		X			

EXHIBIT NO.		DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
17		Letter from Dr. Backous and Stacey Watson to Michael Kavan May 27, 2009		X			
18		Letter from Dr. Backous and Stacey Watson to Michael Kavan September 10, 2009		X			
19		Letter from Dr. Backous and Stacey Watson to Michael Kavan September 28, 2009		X			
20		Letter from Dr. Britt Thedinger May 6, 2010		X			
21		Audiogram, Ear Specialists of Omaha May 6, 2010 and Hearing in Noise Test Results pages 18, 52, 57 May 6, 2010			M, R, H, F, O		
22		Email Chain Michael Argenyi and Thomas Hansen September 21, 2010			M, H, R, F, A, O		
23		Email from Michael Argenyi to Thomas Hansen October 8, 2010			M, H, R, F, A, O		
24		Email from Michael Argenyi to Thomas Hansen October 20, 2010			M, H, R, F, A, O		
25		Email from Michael Argenyi to Thomas Hansen December 6, 2010			M, H, R, F, A, O		
26		Email from Michael Argenyi to Thomas Hansen April 7, 2011			M, H, R, F, A, O		
27		Calendars Maintained by Floyd Knoop			M, H,		

EXHIBIT NO.	DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
	October 2009 – May 2010			R, F, A, O		
28	Resume of Margaret Heaney			M, H, R, O		
29	Expert Report of Margaret Heaney and attachments including Addendum email, Fee Schedule, CART Reporting, CART in the Classroom, General Guidelines for CART, Lecture #66 with handwritten notations, The Neuropsychology of Court Reporting			M, H, R, A, F, O		
30	Federal Funds Accepted by Creighton			M, H, R, F, A, O		
31	Creighton University's Endowment			M, H, R, F, A, O		
32	Answers and Objections to Plaintiff's First Request for Production of Documents Pages 1, 6, and 9			M, H, R, F, O		
33	Letter from Esther Argenyi to Dr. Zetterman with attachment Letter from Esther Argenyi to Michael Kavan September 7, 2009	X		M, H, R, F, A, O		
34	Email Michael Kavan to Michael Argenyi September 15, 2009	P	D			
35	Email Floyd Knoop to Philip Brauer, et al. September 28, 2009	X				
36	Charts of Auxiliary Aids Provided by	X		M,		

EXHIBIT NO.		DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
		Michael Argenyi for M1			H, R, F, A, O		
37		Audiogram March 4, 2009					
38		Confidentiality Agreement signed by Ronda Rankin January 13, 2011	X		M, H, R, F, A, O		
39		Confidentiality Agreement signed by Bethany Koubsky January 13, 2011	X		M, H, R, F, A, O		
40		Email from Alice Smith to Michael Kavan May 6, 2009	X				
41		Costs Michael Argenyi Paid for Auxiliary Aids and Services at Creighton University	X		M, H, R, F, A, O		
42		Costs Michael Argenyi Paid for Auxiliary Aids and Services By Semester and Year	X		M, H, R, F, A, O		
43		Vita of Peter Seiler	X		M, H, R, O		
44		Expert Report of Peter Seiler	X		M, H, R, O		
45		Audiogram of Michael Argenyi with facsimile cover sheet to Richard Okamoto Cover Sheet dated July 23, 2004 and Audiogram dated May 18, 2004	X		M, H, R, F, A, O		
46		Learning Center Notes and Notes of	X		M,		

EXHIBIT NO.		DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
		Richard Okamoto May 7, 2004			H, R, F, A, O		
47		Invoices and Receipts for M1 Auxiliary Aids	X				
48		Invoices and Receipts for M2 Auxiliary Aids	X				
49		Creighton University Organizational Chart	X		M, R, O		
50		Creighton University Strategic Plan Overview (Cover and Pages 14-15)	X		M, R, O		
51		USASpending.gov Summary Results for Creighton University	X		M, H, R, F, A, O		
52		USASpending.gov Prime Award Spending Data Creighton University 2009 Pages 1-16, 1-14, 1-14 (44 pages including 300 Transactions)	X		M, H, R, F, A, O		
53		USASpending.gov Prime Award Spending Data Creighton University 2010 Pages 1-16, 1-14, 1-15, 1-15 60 Pages Including 400 Transactions)	X		M, H, R, F, A, O		
54		USASpending.gov Prime Award Spending Data Creighton University 2011 Pages 1-15 (100 Transactions)	X		M, H, R, F, A, O		
55		Creighton University Financial Report 2009	X		M, R, O		
56		Creighton University Financial Report 2010	X		M, R, O		
57		Creighton University Financial Report 2011	X		M, R, O		
58		Complaint Filed with Office for Civil Rights by Christopher Moreland	X		M, H, R, F,		

EXHIBIT NO.	DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
				A, O		
59	Letter of Finding, U.S. Department of Education July 13, 2007	X		M, H, R, F, A, O		
60	Deafness Among Physicians and Trainees: A National Survey, Academic Medicine, Christopher Moreland, et al., Volume 88, No. 2 February 2013	X		M, H, R, F, A, O		
61	Video "Technology Assures Deaf Students Learn Surgery" <a href="http://www.youtube.com/watch?v=AwDvgFrbY5w">http://www.youtube.com/watch?v=AwDvgFrbY5w</a> Video Exhibit November 30, 2011	X		M, H, R, F, A, O		
62	Spreadsheets of Auxiliary Aid Costs Paid by Argenyi for M1	X		M, H, R, F, A, O		
63	Spreadsheets of Auxiliary Aid Costs Paid by Argenyi for M2	X		M, H, R, F, A, O		
64	Spreadsheets of Loans for Auxiliary Aids	X		M, H, R, F, A, O		
65	Letter from Scott Moore to Dianne DeLair February 23, 2010	X		M, H, R, F, O		
200	Plaintiff's Application Creighton Medical School			*FA RM		

EXHIBIT NO.	DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
				HO		
201	Technical Standards for Creighton Medical School			*FA RM HO		
202	Letter dated June 2, 2009, from Amanda Mogg to Kavan			*FA RM HO		
203	Email dated August 18, 2009, from Kavan to Plaintiff					
204	Letter dated August 27, 2009, from Amy Bones to Dianne DeLair			*F AR M HO		
205	Plaintiff's examination results/Grade Reports			*FA RM HO		
206	Letter dated September 21, 2009, from A. Bones to D. DeLair			*FA RM HO		
207	Emails regarding offer to provide interpreter for Plaintiff to participate in memorial service			FAR MH O		
208	Applied Clinical Skills IDC 290					
209	DVDs of Plaintiffs participation OSCEs			*FA RM HO		
210	Emails exchanged among Plaintiff, Kavan, and Creighton staff regarding selecting FM Assistive Listening Device			*FA RM HO		
211	Creighton University School of Medicine Handbook			*FA RM HO		
212	Emails dated July 13, 2010, from Scott P. Moore to Mary Vargas with attached M2 Syllabi			*FA RM HO		



EXHIBIT NO.	DESCRIPTION	AS NEEDED	OFF	OBJ	DATE RCVD	NOT RCVD
213	Letter dated July 28, 2010, from Dianne DeLair to Scott P. Moore					
214	Letter dated August 13, 2010, from Scott P. Moore to Dianne DeLair			*FA RM HO		
215	Emails exchanged between Creighton staff regarding providing closed caption videos			FAR MH O		
216	Services for Students with Disabilities			FAR MH O		
217	Invoices relating to purchases of FM System and auxiliary aids for Plaintiff			FAR MH O		
218	Medical records from the Listen for Life Center	X		FAR MH O		
219	Pre-Cochlear Implant Documentation	X		FAR MH O		

DATED this the 19th day of July, 2013.

MICHAEL S. ARGENYI, Plaintiff,

By: s/Mary C. Vargas  
 MARY C. VARGAS (MD # 14135)  
 MICHAEL S. STEIN  
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 5100 Buckeystown Pike, Suite 250  
 Frederick, MD 21704  
 (240) 793-3185  
Mary.Vargas@steinvargas.com  
*Attorneys for Plaintiff*

CREIGHTON UNIVERSITY, Defendant,

By: s/Scott P. Moore

Scott Parrish Moore (#20752)

Allison D. Balus (#23270)

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1500 Woodmen Tower

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[abalus@bairdholm.com](mailto:abalus@bairdholm.com)

Attorneys for Defendant

DOCS/1197282.1

IN THE UNITED STATES DISTRICT COURT FOR THE  
DISTRICT OF NEBRASKA

<b>MICHAEL S. ARGENYI,</b>	)	<b>Case No. 8:09-CV-341</b>
	)	
<b>Plaintiff,</b>	)	
	)	
<b>v.</b>	)	<b>PLAINTIFF'S NON-EXPERT</b>
	)	<b>WITNESS LIST</b>
<b>CREIGHTON UNIVERSITY,</b>	)	
	)	
<b>Defendant.</b>	)	

COMES NOW Plaintiff, Michael S. Argenyi, and makes the following pre-trial disclosures pursuant to the Court's Amended Order Setting Final Schedule for Progression of Case (Doc #243): Witness List.

**PLAINTIFF EXPECTS TO PRESENT:**

Michael S. Argenyi  
c/o Plaintiff's counsel

Dr. Britt A. Thedinger  
Omaha, NE 68114

Richard Okamoto  
Seattle, WA 98122-1090

Margaret Heaney  
Omaha, NE 68131

Christopher S. Moreland, M.D.  
New Braunfels, TX 78130

Michael G. Kavan, Ph.D.  
Omaha, NE 68178

Thomas Hansen  
Omaha, NE 68178

Floyd Knoop, M.D.  
Omaha, NE 68178

Ronda Rankin, AAS, NIC, QAST IV  
Omaha, NE

**PLAINTIFF MAY CALL IF THE NEED ARISES:**

Douglas D. Backous, M.D.  
Seattle, WA 98111

Stacey D. Watson  
Seattle, WA 98111

Brenna Carroll  
Seattle, WA 98111

Pam Madsen  
Omaha, NE 68178

Esther E. Argenyi, M.D.  
Woodinville, WA 98072

Robert Pollard  
Rochester, NY 14642

Alice Smith (to establish foundation)  
c/o defense counsel

Jodi Lange (to establish foundation)  
Omaha, NE 68178

Plaintiff, Michael S. Argenyi,

BY: /s/ Dianne DeLair  
Disability Rights Nebraska  
Federal Trust Building

134 S. 13<sup>th</sup> Street, Suite 600  
Lincoln, NE 68508  
Tel: (402) 474-3183  
Fax: (402) 474-3274  
dianne@drne.org

Mary C. Vargas, #14135 (District Court)  
Michael S. Stein, Esq.  
Stein & Vargas, LLP  
5100 Buckeystown Pike, Suite 250  
Frederick, MD 21704  
Tel: (240) 793-3185  
Fax: (888) 778-4620  
mary.vargas@steinvargas.com

Marc Charmatz, #09358 (District Court of MD)  
National Association for the Deaf  
Law and Advocacy Center  
Legal Department  
8630 Fenton Street, Suite 820  
Silver Spring, MD 20910  
Tel: (301) 587-7732  
Fax: (301) 587-1791  
marc.charmatz@nad.org

### **CERTIFICATE OF SERVICE**

I hereby certify that on July 2, 2013, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which sent notification of such filing to the following:

Scott P. Moore  
Chris Hedican  
Allison Balus

/s/ Dianne D. DeLair

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEBRASKA**

MICHAEL S. ARGENYI,

Case No. 8:09cv341

Plaintiff(s),

**VS.**

## DEFENDANT'S TRIAL WITNESS LIST

CREIGHTON UNIVERSITY,

Defendant(s).

Defendant, Creighton University, makes the following disclosures of its witnesses for

1. The name and the address of each individual Defendant expects to present at trial to testify:

Michael G. Kavan, Ph.D.  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Wade Pearson  
Creighton University  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Floyd C. Knoop, PhD  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Chuck Lenosky  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Stacey D. Watson, MS, CAA 1  
The Listen for Life Center at Virginia Mason  
1100 Ninth Avenue  
Seattle, WA 98111  
(206) 223-8802

Tom Pisarri  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Eugene Barone  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Thomas Hansen  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Dianne DeLair (solely for foundation)  
Disability Rights Nebraska  
Federal Trust Building  
134 S. 13<sup>th</sup> Street, Suite 600  
Lincoln, NE 68508  
(402) 474-3183

Mary Vargas (solely for foundation)  
Stein & Vargas, LLP  
5100 Buckeystown Pike, Suite 250  
Frederick, MD 21704  
(240) 793-3185

Plaintiff

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1 Defendant sought to withdraw this witness, but Magistrate Judge Gossett ruled that she must be kept on the list. Defendant objects to listing this witness unless the Court allows it to depose her before trial.



2. The name and the address of each additional individual likely to testify for Defendant if the need arises:

Kathryn Huggett  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Brianna Scott  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Terry Zach  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Christy A. Rentmeester  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Jan Madsen  
Wade Pearson  
Creighton University  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Theresa Townley  
Creighton University School of Medicine  
2500 California Plaza  
Omaha, NE 68178  
(402) 280-2905

Margaret Tyska Heaney, RPR

406 South 48<sup>th</sup> Avenue  
Omaha, Nebraska 68132  
(402) 558-9589

Richard Okamoto (To be called by deposition)  
2114 S. State Street  
Seattle, WA 98114  
(206) 200-3567

DATED this the 25th day of July, 2013.

CREIGHTON UNIVERSITY Defendant,

By: s/Scott P. Moore

Scott Parrish Moore (#20752)

Allison D. Balus (#23270)

BAIRD HOLM LLP

1500 Woodmen Tower

Omaha, NE 68102

Phone: (402) 636-8268

Fax: (402) 231-8552

[spmoore@bairdholm.com](mailto:spmoore@bairdholm.com)

[abalus@bairdholm.com](mailto:abalus@bairdholm.com)

Attorneys for Defendant

DOCS/1193825.7

From:

06/03/2010 12:38

#746 P.012/014

MARGARET TYSKA HEANEY, RPR, CSR  
406 South 48<sup>th</sup> Avenue  
Omaha, Nebraska 68132  
(402) 558-9589

**PERSONAL:**

Birthdate - February 7, 1963  
Married - Christopher J. Heaney, 6/28/86  
Children - Stanislaus Joseph, age 19  
Marian Janae, age 14  
Robert Giovanni, age 7

**EDUCATION:**

Metropolitan Community College, Omaha, Nebraska  
Deaf Culture  
American Sign Language I - IV  
Dean's List  
August 2007 - December 2009.

Loyola University, New Orleans, LA  
Bachelor's Degree of Music Business  
August 1981 - May 1985.

Institute for Legal Studies, Metairie, LA  
Associate's Degree of Court Reporting  
May 1988 - May 1990.

**PROFESSIONAL  
EXPERIENCE:**

2010 - CART Provider CEASD (Conference of Educational Administrators of  
Schools for the Deaf) Annual Conference, Council Bluffs, Iowa

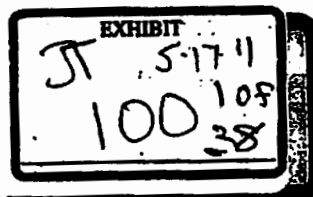
September 2009 - May 2010 - Creighton University School of Medicine,  
Omaha, Nebraska. CART Provider for first-year medical student, including  
lectures, computer lab, anatomy lab, Grand Rounds.

2007 - 2008 Thomas & Thomas Court Reporters, Lincoln, Nebraska. Realtime  
reporter for patent litigation - BASF vs. Monsanto, et al., six months.  
Responsible for Realtime reporting of confidential live proceedings, production  
of transcript within 24 hours; upon Judge's request, immediate production of  
excerpts for ruling.

2007 CART provider of Annual Deaf Nation Expo, Omaha, Nebraska.

2004 - 2008 Metropolitan Community College, Omaha, Nebraska. CART  
provider for various level students, including lectures, small group discussions.

Received Time Jun. 3. 2010 12:57PM No. 0158



From:

**2004 – Present Internal Revenue Service, State of Florida. Transcription of tape recordings made in undercover operations.**

**2003 – 2004 Creighton University, School of Pharmacology, Omaha, Nebraska. CART provider for web-based third-year pharmacology student.**

**2002 – 2003 Creighton University, Omaha, Nebraska . CART Provider for on-campus undergraduate student – fall semester.**

**2002 Creighton University School of Medicine, Omaha, Nebraska. Lead reporter of an all-day highly confidential conference entitled: Ethics of Study Design in Osteoporosis Clinical Trials. Produced transcript within one hour of completion of conference.**

**2002 Thomas & Thomas Court Reporters, Omaha, Nebraska. Lead court reporter of deposition of Dr. Carl Camras with overnight transcription.**

**2000 - Present Thomas & Thomas Court Reporters & Legal Certified Video, LLC, Omaha, Nebraska. Verbatim reporting of depositions, Board of Mental Health Hearings, Workers' compensation hearings, Nebraska Child Support Hearings, Juvenile Court Proceedings, realtime reporting, CART services.**

**1997 – 2000 Riverside Reporting Service, Memphis, Tennessee. Verbatim reporting of civil depositions, civil trials, criminal trials in metropolitan Memphis area and the state of Arkansas.**

**May 1997 – July 1997 Precise Reporting Service, P.C., Chicago, Illinois. Verbatim reporting of medical, technical and non-technical depositions.**

**April 1997 - July 1997 – United States District Court for the Northern District of Illinois. Verbatim reporting of Federal proceedings before the Honorable John F. Grady. Assistant to Laura M. Brennan, Official Reporter.**

**1995 – 1996 CART Provider for MBA student, Chicago, Illinois.**

**1992 – 1997 Cochran, Pudlo & Kozlowski, Ltd., Chicago, Illinois. Realtime reporting and verbatim reporting of medical, technical and nontechnical depositions, EEOC hearings, civil trials, realtime reporting.**

**October 1991 - December 1991 Metropolitan Reporting, New Orleans, Louisiana. Verbatim reporting of medical, technical and non-technical depositions.**

**July 1990 – February 1991 Sylvia Pastrano, P.C., New Orleans, Louisiana. Verbatim reporting of medical, technical and non-technical depositions.**

From:

**LICENSES/CERTIFICATIONS:**

Nebraska, Certified Court Reporter - 2008 - present  
Iowa, Certified Shorthand Reporter - 3/8/03  
Arkansas Certified Court Reporter - 4/4/98  
Tennessee - Notary Public - 12/97  
Certificate of Merit, JC - 5/3/03  
Certificate of Merit, LIT - 5/7/94  
Certificate of Merit, WKT - 11/6/93  
Illinois, Certified Shorthand Reporter - 1/92  
Official Court Reporter Proficiency Examination, Illinois, 1/11/92  
Louisiana Certified Shorthand Reporter, 1990  
National Court Reporters Association, 1990 - present

**AFFILIATIONS:**

Nebraska Court Reporters Association, 2007 - present  
Iowa Court Reporters Association, 2003 - present  
Illinois Court Reporters Association, 1992 - 1997  
National Court Reporters Association, 1990 - present  
Xscribe Users Association, 1993 -1996

**VOLUNTEER WORK:**

Hearing Loss Association of America, Nebraska Chapter - CART Provider,  
2007 - present  
Dundee Presbyterian Church - CART Provider, 2009 - present  
St. Cecilia's Cathedral School - Mending Mom, 2007 - present  
St. Cecilia's Cathedral - Parish Pastoral Council, 2009 - present

## **CART Reporting**

**Margaret Tyska Heaney, RPR**

**My career as a court reporter began in 1990 when I attained the national certification of Registered Professional Reporter through the National Court Reporters Association. In addition to a written knowledge exam, the skills test consisted of three sections of material ranging in speeds from 180 to 225 words a minute. It is with time, experience and opportunity that I gradually became a realtime writer and subsequently a CART (Communication Access Realtime Translation) provider. As my career brought me from Louisiana to Illinois, Tennessee, Arkansas, Nebraska and Iowa, I was presented with new and different opportunities. It was in Illinois that I was first given the opportunity to provide CART to a deaf student working on his MBA.**

**The demand for CART services has grown over the years as technology has evolved and gained acceptance among educators, disability services coordinators and students with hearing loss as a useful method for participating fully in the classroom. It has been my experience that students who do not use American Sign Language as their first language tend to find CART a superior and more comfortable method with which to obtain the necessary educational material for them to reach their goals. The effectiveness of CART depends greatly on the skills of the provider, the environment in which CART is provided and the ability of all parties involved, from the administration to the student and the reporter, to be able to work together.**

**So what exactly is CART? It is a word-for-word speech-to-text interpreting service for people with a hearing loss or others who would otherwise benefit from this accommodation – for instance, people for whom English is a second language. Unlike computerized note taking or abbreviation systems, which summarize information for the consumer, or student note taking services, CART provides a complete translation of all spoken words as well as environmental sounds. This enables the students to decide for themselves what information is important to them and no longer be limited by the summarization of others.**

**Section 36.303(b)(1) of the Americans with Disabilities Act specifically recognizes CART as an assistive technology that affords effective communication access.**

**How does it work? A CART provider uses a steno machine, notebook computer, and realtime software to render instant speech-to-text translation. The translation may appear, as in the instance of Michael Argenyi, on a computer monitor that is placed on the desk in front of him in such a way that he can watch the professor, the Power Point or whatever else may be going on in the front of the classroom and have the translation within his sight. This particular way of setting up the computer is very similar to the captions one may see on their personal TV. You may be watching what is going on in the scene being played on the screen, but simultaneously in your line of sight you have the English translation as well.**



From:

Several things take place in the environment that adds to the experience of communication. It is the CART provider's responsibility to convey as many of those things as possible. For instance, a statement spoken in a tongue-in-cheek manner would be translated verbatim with the added word of "sarcastic" as a parenthetical to convey the speaker's meaning.

There are many benefits to CART. First, it is flexible. It can be used on a one-on-one basis, in small groups or even projected on a large screen for the benefit of an entire room of people.

CART promotes independent learning. No longer is a student dependent upon the notes of another. He/she is presented with all of the material the other students are and then allowed to choose what they feel is important to take down as notes just the same as every student in the classroom.

In some settings students are provided the verbatim transcript of the class and then able to review and highlight what they deem necessary. In the case of Michael Argenyi, he is not provided a transcript of the class and relies on the notes that he takes at the time of the lecture. There were a few exceptions to this because of scheduling conflicts where I was physically unable to be in class at the time of the lecture. I then provided a transcript from the podcast and provided it to him at a later date. This, however, is not an ideal situation as there is great delay in the conveying of the information, and it is always more difficult to transcribe from a recording rather than a live event.

CART promotes full participation. Because the translation is in realtime, (with a second or two delay), the student is able to follow along in a discussion and timely add comments and discussion. With the added cue of environmental components and the mood of the speaker, the student can further respond appropriately to the setting.

All of these things lead into the greatest benefit, equal access. The student is able to fully understand what is going on, including jokes, side comments, reaction of the classmates and have a broad and rich experience in the classroom.

The effectiveness of CART services depends a great deal on the skills of the CART provider. The National Court Reporters Association has been certifying court reporters for more than 75 years, and NCRA has recently developed a certification specifically for CART providers. How can one define a competent CART provider? The CART provider's manual sets forth various factors to consider in addition to ability to write.

First of all, there is sensitivity. It is important in creating good public relations that a reporter knows how to effectively interact with consumers and participants and have an understanding of the role of sign language and sign language interpreters. The CART provider has an understanding of Deaf culture and realizes that CART or ASL may be preferred by individuals depending on whether the person is Deaf, deaf, late-deafened or hard-of-hearing. Training acquired in communication techniques through seminars, disability agencies and sign language courses is imperative.



From:

06/17/2010 14:30 #777 P.004/006

The CART provider must be able to stay in the role of facilitator of communication. Invitations to participate in the proceeding outside of the role of CART provider should be politely declined.

Just as within the legal setting, confidentiality and discretion are of utmost importance at all times. The CART provider should be aware that a casual comment made out of turn could betray the confidences of a student or violate that person's privacy.

Keeping up with new technology, certifications, literature, and laws relating to CART services enhances the provider's ability to deliver the most up-to-date services possible.

Preparation is paramount and sometimes one of the most difficult things to achieve. When faced with a new CART assignment, the reporter must research and request all available information pertinent to the subject matter. Obtaining proper nouns, terms of art, Power Point presentations, and keynote speaker notes for a given talk greatly increases the ability of a CART provider to translate with a high degree of accuracy.

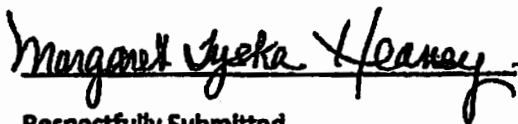
In the classroom setting, a CART provider must make every effort possible to ensure an accurate job dictionary for the terminology to be used in each class. In the situation of the medical school lectures, it was quickly determined that preparation would be necessary on a daily basis. There are often two to six hours of lecture a day, sometimes within two or three different classes. For instance, Evidence Based Medicine, Neuroscience lecture, and Neuroscience lab was not an unusual combination in the spring semester of 2010. The terminology daily offered something new including scientific formulas, Greek letters, and the use of super and subscript notations.

The medical school students are provided, in most instances in advance of the lecture, the Power Point presentations. They are then able to review in advance if desired. Since I was denied access to the Power Point presentations in advance, and it was imperative that preparation be done, I was forwarded the lectures for the week via e-mail. I would then print out the presentations and work from the hard copy on building a job dictionary in advance of the next day's lectures.

Once the job dictionary is built, the CART provider is expected to write "conflict-free." In other words, homonyms and synonyms must be distinguished according to context. Knowledge of grammar, punctuation, sentence structure, high-frequency colloquialisms and slang is crucial. The CART provider must listen to content and be aware of continuity and sense to anticipate and prevent errors in translation.

Understanding and knowledge of the software and hardware involved is important in order to be able to troubleshoot and solve other technical problems. In order to meet student preferences, one must know how to change the appearance of the translation in terms of upper/lowercase, colored backgrounds, etc.

The CART provider should abide by the National Court Reporters Association Code of Professional Ethics and should follow the General Guidelines for CART Providers. And finally, the CART provider must constantly be aware that the student is relying on the competence of the reporter to create the best possible chance of equal access. And just as the primary role of the realtime reporter in the classroom is to provide communication access, it is communication between the CART provider, student, instructor, and coordinator of disability services that will prove critical to the successful providing of this service.



Respectfully Submitted,  
June 16, 2009  
Margaret Tyska Heaney, RPR

**References** Andrews, J. (2000). *Effective Classroom Participation*.  
[Online] Available: <http://cart.ncraonline.org/testimonials/andrews.shtml>.

Arfa, R. (2000). *Having the Right Cards*. [Online] Available:  
<http://cart.ncraonline.org/testimonials/arfa.shtml>.

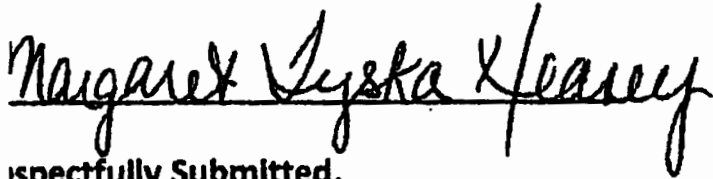
*Auxiliary Aids and Services for Postsecondary Students With Disabilities*  
(1998). Washington, D.C.: Department of Education Office of Civil Rights.  
[Online] Available:  
<http://www.ed.gov/about/offices/list/ocr/docs/auxaids.html>.

Battat, B. (1998). *Teaching Students Who Are Hard-of-Hearing*. Rochester,  
N.Y.: Northeast Technical Assistance Center, Rochester Institute of  
Technology. [Online] Available:  
<http://www.netac.rit.edu/publication/tipsheet/teachingb.html>.

Brentano, J., Larson, J., Werlinger, J., Hardeman, G., Graves, P.,  
Eisenberg, S., Pfeifinger-Schact, K. (2000). *Realtime in the Educational  
Setting: Implementing New Technology for Access and ADA Compliance*.  
Vienna, Va.: National Court Reporters Foundation.

*The CART Provider's Manual: A report of the NCRA Communication Access  
Realtime Translation Task Force* (2001). Vienna, Va.: National Court  
Reporters Association. [Online] Available:  
<http://www.cartinfo.org/manual.html>.

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Respectfully Submitted,  
June 16, 2010  
Margaret Tyska Heaney, RPR

References Andrews, J. (2000). Effective Classroom Participation. [Online] Available: <http://cart.ncraonline.org/testimonials/andrews.shtml>.

Arfa, R. (2000). Having the Right Cards. [Online] Available: <http://cart.ncraonline.org/testimonials/arfa.shtml>.

Auxiliary Aids and Services for Postsecondary Students With Disabilities (1998). Washington, D.C.: Department of Education Office of Civil Rights. [Online] Available: <http://www.ed.gov/about/offices/list/ocr/docs/auxaids.html>.

Battat, B. (1998). Teaching Students Who Are Hard-of-Hearing. Rochester, N.Y.: Northeast Technical Assistance Center, Rochester Institute of Technology. [Online] Available: <http://www.netac.rit.edu/publication/tipsheet/teachingb.html>.

Brentano, J., Larson, J., Werlinger, J., Hardeman, G., Graves, P., Eisenberg, S., Pfeleinger-Schact, K. (2000). Realtime in the Educational Setting: Implementing New Technology for Access and ADA Compliance. Vienna, Va.: National Court Reporters Foundation.

The CART Provider's Manual: A report of the NCRA Communication Access Realtime Translation Task Force (2001). Vienna, Va.:

From:

**Communication Access Information Center.: National Court Reporters Association. [Online] Available:**  
**<http://www.cart-info.org>**

**Ginsburg, C. (2000). Performing Your Best With CART. [Online] Available:**  
**<http://cart.ncraonline.org/testimonials/ginsburg.shtml>**

**Hartley, P. (2000). It's Simply Fair. [Online] Available:**  
**<http://cart.ncraonline.org/testimonials/hartley.shtml>**

**How to Locate a CART Provider (2001). [Online] Available:**  
**<http://cart.ncraonline.org/consumer/locator.shtml>**

**Nelson, A. (2000). Getting Everything. [Online] Available:**  
**<http://cart.ncraonline.org/testimonials/nelson.shtml>**

**Stinson, M., Eisenberg, S., Horn, C., Larson, J., Levitt, H., Stuckless, R. (1999). Real-Time Speech-to-Text Services: A report of the National Task Force on Quality of Services in the Postsecondary Education of Deaf and Hard-of-Hearing Students. Rochester, N.Y.: Northeast Technical Assistance Center, Rochester Institute of Technology.**

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**Dianne DeLair**

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**From:** Mydge [mth5@cox.net]  
**Sent:** Thursday, June 17, 2010 3:21 PM  
**To:** Dianne DeLair  
**Subject:** Addendum to Report

Dear Dianne,

As an addendum to my report, I would like to state that I have never provided prior expert testimony and do not have any publications.

Respectfully submitted  
June 16, 2010

Margaret Tyska Heaney, RPR

**MARGARET TYSKA HEANEY, RPR**

**FEE SCHEDULE/INVOICE**

**June 1, 2010**

**\$95/hour - testimony**

**\$45/hour – preparation**

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**Preparation – 5/28/10 – 5/30/10**

**3 hours**

**\$135.00**

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**Total Charges**

**\$135.00**



## **CART Reporting**

### **DEFINITION**

**CART reporting is a version of the captioning process called Communication Access Realtime Translation, also known as live-event captioning. It allows court reporters to provide more personalized services for deaf and hard-of-hearing people. CART providers accompany the client as needed – for example, to college classes – to provide an instant conversion of speech into text using the stenotype machine linked to a laptop computer. (ncraonline.org, Careers in Court Reporting, Captioning and CART – An Introduction.)**

**According to the National Court Reporters Association, a CART provider must possess the knowledge and procedures applicable to the specific realtime environment. Knowledge of available hardware and software as well as equipment set up and room layout.**

**It is important in creating good public relations that a reporter knows how to effectively interact with consumers and participants and have an understanding of the role of sign language and sign language interpreters. Education of Deaf culture and diversity and sensitivity issues.&\***

**A CART reporter must abide by the NCRA's Guidelines for Professional Practice and the Code of Professional Ethics. Familiarity with the CART Provider's Manual is important as well.**

### **EDUCATION AND TRAINING**

**A CART provider is a highly trained professional who possesses the advanced skills required to impartially, effectively, and accurately perform realtime translation. There are several professional certifications a CART provider might have. The first is RPR, or Registered Professional Reporter. This is the basic level of certification required for court reporting and is the first step in learning the advanced skills necessary to become a CART provider. RPRs have achieved writing accuracy at 225 wpm. Obtaining the CRR, or Certified Realtime Reporter, designation demonstrates a proficiency in realtime translation. A Certified CART Provider, or CCP, possesses the knowledge, skill, and ability to produce complete, accurate, simultaneous translation and display of live proceedings utilizing computer-aided translation in a live event setting at speeds exceeding 180 wpm.**

**A CART provider must also be sensitive to the varying needs of consumers and has had training in conveying a speaker's message, complete with environmental cues.**

**The Americans with Disabilities Act specifically recognizes CART as an assistive technology which affords "effective communication access." Communication access more aptly describes a CART provider's role and distinguishes CART from realtime reporting in a traditional litigation setting.**





# Communication Access Information Center

Sponsored by the National Court Reporters Foundation

## CART in the Classroom: How to Make Realtime Captioning Work for You

[How to Locate a CART  
Provider](#)

[What to Expect From a  
CART Provider](#)

[CART in the Classroom](#)

[Meeting the  
Communication Needs of  
Children in School](#)

[Meeting the  
Communication Needs of  
Postsecondary Students](#)

[Deaf, Hard-of-Hearing  
Resources](#)

[Communication Access in  
the Courts](#)

[CART Legal Decisions](#)

[Benefits of CART](#)

[CART Environments](#)

[Digital Hearing Aids](#)

### What Are the Benefits of CART in the Classroom?

The following paper, [CART in the Classroom: How to Make Realtime Captioning Work for You](#), presented at the Instructional Technology and Education of the Deaf symposium at the National Technical Institute for the Deaf in June 2001, explains the benefits of CART for students who are deaf, hard-of-hearing, late-deafened, oral deaf, or have cochlear implants. The paper also discusses how CART providers can work effectively with instructors and coordinators of services to ensure that students with hearing loss receive the best communication access possible.

Researcher Aaron Steinfeld wrote his dissertation on the benefits of captions in the classroom setting. When he presented this information at a convention of the Alexander Graham Bell Association for the Deaf and Hard of Hearing (AG Bell), he was inundated with requests on the studies he used as a starting point. He has allowed us to reprint this [essay](#), in which he lists a number of those references, for the use of people who are petitioning for the use of CART in the classroom.



[CAIC Home](#)

[NCRF Home](#)

[NCRA Home](#)

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## **General Guidelines for Communication Access Realtime Translation (CART) Providers in a Nonlegal Setting**

A Communication Access Realtime Translation (CART) provider in a nonlegal setting performs realtime translation as an aid to communication for people who are deaf or hard-of-hearing. Common sense and professional courtesy should guide the Member in applying the following Guidelines. When providing CART in the legal setting, follow the guidelines set out in the section above.

In providing CART service, a Member should:

- A. Accept assignments using discretion with regard to skill, setting, and the consumers involved, and accurately represent the provider's qualifications for CART.
- B. Establish a clear understanding of:
  - 1. who is hiring the CART provider;
  - 2. whether an electronic file of the roughly edited text with disclaimer is to be preserved;
  - 3. if yes, whether all participants have been informed that an electronic file of the roughly edited text with disclaimer will be preserved; and
  - 4. who is entitled to receive a copy of the electronic file.
- C. Acquire, when possible, information or materials in advance to prepare a job dictionary.
- D. Know the software and hardware system used and be able to do simple troubleshooting.
- E. Strive to achieve, as nearly verbatim as possible, 100% accuracy at all times.
- F. Include in the realtime display the identification, content, and spirit of the speaker, as well as environmental sounds.
- G. Refrain from counseling, advising, or interjecting personal opinions except as required to accomplish the task at hand.
- H. Cooperate with all parties to ensure that effective communication is taking place.
- I. In confidential nonlegal settings (i.e., medical discussions, support groups), delete all files immediately after the assignment unless otherwise requested not to do so.
- J. Preserve the privacy of a consumer's personal information.
- K. Familiarize oneself with the provisions of NCRA's "The CART Provider's Manual," these Guidelines, and any updates thereto.
- L. Keep abreast of current trends, laws, literature, and technological advances relating to CART.

From:

06/03/2010 12:38

#746 P.004/014

**NCRA CODE OF PROFESSIONAL ETHICS**

The mandatory Code of Professional Ethics defines the ethical relationship the public, the bench, and the bar have a right to expect from a Member. The Code sets out the conduct of the Member when dealing with the user of reporting services and acquaints the user, as well as the Member, with guidelines established for professional behavior. The Guidelines for Professional Practice, on the other hand, are goals which every Member should strive to attain and maintain. Members are urged to comply with the Guidelines and must adhere to local, state and federal rules and statutes. It should be noted that these guidelines do not exhaust the moral and ethical considerations with which the Member should conform, but provide the framework for the practice of reporting. Not every situation a Member may encounter can be foreseen, but a Member should always adhere to fundamental ethical principles. By complying with the Code of Professional Ethics and Guidelines for Professional Practice, Members maintain their profession at the highest level.

**A Member Shall:**

1. Be fair and impartial toward each participant in all aspects of reported proceedings, and always offer to provide comparable services to all parties in a proceeding.
  2. Be alert to situations that are conflicts of interest or that may give the appearance of a conflict of interest. If a conflict or a potential conflict arises, the Member shall disclose that conflict or potential conflict.
  3. Guard against not only the fact but the appearance of impropriety.
  4. Preserve the confidentiality and ensure the security of information, oral or written, entrusted to the Member by any of the parties in a proceeding.
  5. Be truthful and accurate when making public statements or when advertising the Member's qualifications or the services provided.
  6. Refrain, as an official reporter, from freelance reporting activities that interfere with official duties and obligations.
  7. Determine fees independently, except when established by statute or court order, entering into no unlawful agreements with other reporters on the fees to any user.
  8. Refrain from giving, directly or indirectly, any gift, incentive, reward or anything of value to attorneys, clients, witnesses, insurance companies or any other persons or entities associated with the litigation, or to the representatives or agents of any of the foregoing, except for (1) items that do not exceed \$100 in the aggregate per recipient each year, or, (2) pro bono services as defined by the NCRA Guidelines for Professional Practice or by applicable state and local laws, rules and regulations.
  9. Maintain the integrity of the reporting profession.
  10. Abide by the NCRA Constitution & Bylaws.
-

## **CART in the Classroom: How to Make Realtime Captioning Work for You**

### **Introduction**

Communication Access Realtime Translation (CART) is a word-for-word speech-to-text interpreting service for people with a hearing loss or who would otherwise benefit from this accommodation. Unlike computerized notetaking or abbreviation systems, which summarize information for the consumer, CART provides a complete translation of all spoken words and environmental sounds, empowering consumers to decide for themselves what information is important to them. Section 36.303(b)(1) of the Americans with Disabilities Act specifically recognizes CART as an assistive technology that affords effective communication access.

A CART provider uses a steno machine, notebook computer, and realtime software to render instant speech-to-text translation on a computer monitor or other display for the benefit of an individual consumer or larger group in a number of settings: classrooms; business, government, and educational functions; courtrooms; and religious, civic, cultural, recreation, and entertainment events. In addition, a CART provider is sensitive to the varying needs of consumers and has had training in conveying a speaker's message, complete with environmental cues.

The demand for CART has grown at a steady pace in recent years in almost all arenas. However, the greatest growth has taken place in the educational setting, from elementary to graduate school, as this technology has gained greater notoriety among educators, disability services coordinators, and students with hearing loss as a useful method for participating fully in the classroom. Several key factors play a role in determining the effectiveness of this service: the competence of the CART provider, the environment in which CART is provided, and the ability of the CART provider, student, instructor, and coordinator of services to work together.

### **CART Benefits**

In the 1999 paper "Real-Time Speech-to-Text Services," the authors, members of the National Task Force on Quality of Services in the Postsecondary Education of Deaf and Hard-of-Hearing Students, referenced a 1988 study at the Rochester Institute of Technology of students who are deaf and hard-of-hearing. When surveyed about CART, the students responded favorably. The authors state that "A majority of the students reported that they understood more from the steno-based text display than from interpreting" (Stinson et al., 1999, p. 12).



The Task Force noted several other advantages to the steno-based CART system: 1) CART provides a verbatim record of the class, capturing every word spoken; 2) a single CART provider can cover a two-hour class with a brief break; and 3) the steno machine is silent (Stinson et al., 1999, p. 21). Because CART gives students with hearing loss a complete record of what is said in the classroom, several other advantages to this communication access tool become readily apparent:

**Flexibility.** CART can be used in a variety of settings, whether one-on-one with a single student reading off of the CART provider's laptop computer screen, in a small group with the text appearing on a television monitor, or even in a much larger setting with the CART provider's realtime text projected to a large screen for everyone in the lecture to read.

**Independent learning.** With the provision of CART, the responsibility for a student's education rests with the student. Rather than relying on notes provided by others, the student will have a verbatim record of the class or discussion from which to determine what is or is not important based upon the student's understanding of the material presented. In addition, students can have the text file fed through a version of litigation-support software as the CART provider realtimes the class. The student can then use the highlight or annotate features of the software to pick out what he or she wants to retain. Thus, the student has the choice of obtaining the verbatim record of the class or only those portions that he or she deems important. As Rachel Arfa (2000), who used CART as an undergraduate at the University of Michigan, explains, "With realtime captioning, I was able to form my own opinions of the subject matter and receive the information firsthand, rather than second, third or fourth hand, since CART takes every sentence that is being said."

**Full participation.** Because the provision of CART services is in real time, the student with hearing loss has the opportunity to participate in a classroom setting just like any other student. Andy Nelson (2000), who used CART at the University of Washington, says, "Realtime captioning allowed me to get everything the professor says in class, word for word, as well as comments or questions students have during the lecture. This enabled me to actively participate in discussions and lectures, something I had never ever been able to do before." Joan Andrews (2000), a CART consumer while in college, offers another example: "Realtime professionals also can include brief descriptions that provide information about the mood of the person speaking - excited, despairing, angry, heated, placating; signals that the hearing students access easily and which often guide them in choosing their responses to the dialogue taking place. These bits of information play a vital role in effective classroom participation."

**Equal access.** "CART allowed me for the first time in my entire academic career to follow classroom discussions, participate in classroom discussions, and take my own notes," says Carolyn Ginsburg (2000), who used CART while earning her MBA from Columbia University. "What an incredible experience this was. It was very liberating, made me finally feel equal to my peers in the classroom, gave me equal access to information, and gave me more confidence to express my opinions and answers." Paul Hartley (2000), currently a student at Emory University, offers a similar opinion: "Being at the same level as any other student is the major and most important benefit of CART services. I get the same information, hear the same lectures verbatim, feel more a part of the class, and hear interesting anecdotes or a professor's corny jokes."

The provision of CART services also offers some benefits to the instructor. For example, verbatim lectures may give the college professor an additional tool for preparing tests or integrating information into a research study. Further, "Some instructors welcome the transcripts as a way of tightening their lectures and reviewing their students' questions and comments. If the instructor chooses, he or she should be at liberty to share them with hearing members of the class also. The transcripts can be of value also in tutoring deaf and hard-of-hearing students, enabling tutors to organize tutoring sessions in close accord with course content" (Stinson et al., 1999, p. 7-8).

#### **The Competent CART Provider**

The utility of CART services for the student with hearing loss depends a great deal on the skills of the CART provider. The National Court Reporters Association has been certifying court reporters for more than 75 years, and NCRA is currently developing a certification specifically for CART providers. Until this objective measure of the CART provider's ability is in place, how can you define a competent CART provider?

NCRA's CART Task Force considers the Registered Professional Reporter (RPR) a requisite for a qualified CART provider. The RPR certifies the entry-level reporter's ability to provide a verbatim record at speeds ranging from 180-225 words per minute with a minimum accuracy of 95 percent ("How to Locate," 2001). The Task Force also recommends the attainment of the Certified Realtime Reporter designation. The CRR has proven his or her ability to write realtime at variable speeds ranging from 180-200 words per minute with a minimum accuracy of 96 percent. The CART Provider's Manual (2001), published by NCRA, offers some additional factors to consider:

**Sensitivity.** The CART provider has general knowledge about Deaf culture and understands that the preferred communication mode of a person with hearing loss differs depending on whether the individual identifies him or herself as Deaf, deaf, late-deafened, or hard-of-hearing. A CART provider acquires training in communication techniques through court reporting association seminars, disability agencies, sign language courses, etc.

**Staying in role.** The CART provider's role is to facilitate communication. A CART provider declines any invitation or suggestion to comment, interject, advise, respond to inquiries, or in any way become involved in the proceedings outside the role of CART provider.

**Confidentiality.** Courtesy and discretion are required of the CART provider at all times. A casual word or action may betray a consumer's confidences or violate a client's privacy.

**Professional development.** The CART provider keeps abreast of current trends, laws, literature, and technological advances relating to the provision of CART service.

**Preparation.** The CART provider must make every effort to ensure an accurate job dictionary for the terminology to be used in each class.

**Realtime writing.** The CART provider writes conflict free, includes punctuation, and sustains accuracy for long periods of time.

**Software/computer knowledge.** The CART provider must operate a computer-aided transcription program and understand its realtime translation and display functions. The competent CART provider knows how to troubleshoot and solve hardware, software, and other technical problems. In order to meet consumer preferences, the CART provider must know how to activate upper/lowercase, colored backgrounds, enlarged text, and other display options. When appropriate, the CART provider must be able to furnish the computer file of the session text as requested.

**Language comprehension.** Knowledge of grammar, punctuation, sentence structure, spelling, vocabulary, high-frequency colloquialisms, and slang is crucial. The CART provider must listen for continuity, sense, and detail of proceedings, anticipating and preventing errors in translation.

#### **CART Environments**

CART services can prove effective in almost any educational environment, from grade school to graduate school. In particular, "Today, steno-based systems rank as an effective support service for large numbers of deaf and hard-of-hearing students in mainstream college environments throughout the country" (Stinson et al., 1999, p. 5).

Why is the steno-based CART system gaining popularity? Much of it goes back to the comments from CART consumers regarding independent learning, full participation, and equal access. As noted in "Auxiliary Aids and Services for Postsecondary Students With Disabilities," published by the Department of Justice's Office of Civil Rights (1998), schools not only must provide auxiliary aids and services in a timely manner, but they must ensure that students with disabilities can participate effectively. And the definition for effectiveness? "No aid or service will be useful unless it is successful in equalizing the opportunity for a particular student with a disability to participate in the education program or activity."



Keep in mind, however, that generally CART consumers are individuals who have developed a hearing loss postlingually, or rather after the acquisition of language. In addition, there is no set age at which a child can begin to make use of this service: "Always remember that each individual case is unique -- there are no hard-and-fast rules on the age level of a student for which realtime translation is suited" (Brentano et al., 2000, p. 22).

Before implementing CART in an educational environment, the most important consideration, of course, is the student's preference regarding a method for communication access. Other factors are prior experience and satisfaction with realtime speech-to-text translation in the classroom, the student's ability or willingness to participate in discussions and to ask questions, and the level of reading proficiency (Stinson et al., 1999, p. 23).

### **Working Together**

The success of CART in the classroom setting depends not only on the provider's skill level, but also on the ability of the CART provider to work effectively with instructors and the coordinator of services to ensure that the student with hearing loss receives the best service possible. Following are several considerations that can help to ensure an effective working arrangement to the benefit of the student with hearing loss:

**Control of the classroom.** The CART provider is in the classroom with the sole purpose of providing communication access for the student who is hard-of-hearing. To ensure an effective realtime translation, students should speak one at a time. "Noisy" conditions can have an adverse effect on the production of accurate text by the CART provider (Stinson et al., 1999, p. 9). The responsibility for controlling the classroom lies with the instructor, who must maintain an orderly discussion to allow for participation by the CART consumer. The instructor may need to restate a student's comments to ensure understanding.

**Preparation.** "The reporter will work with the instructor for each assigned class to assure that all the technical terminology for that particular class will be provided in advance so that it can be entered into the reporter's computer dictionary" (Brentano et al., 2000, p. 9). This preparation, with the instructor's assistance, allows for a more accurate translation of the spoken word. The CART provider should receive copies of all textbooks and other class materials from which to prepare.

If possible, this preparation also includes a meeting between the CART provider, student, instructor, and coordinator of services before the start of the school year. At this time all involved parties can ask questions regarding requirements or concerns. In addition, "This will allow the reporter an opportunity to view the classroom's physical setup and to work out with the disability coordinator, instructor, and student the best seating and sight lines available for all concerned" (Brentano et al., 2000, p. 22).

**Laying out the ground rules.** Discuss during the orientation meeting what will be expected of the CART provider. What classes will require CART? How long are the classes? Will the CART provider be following the student to different classrooms? Who is entitled to receive a copy of the notes? What form will the notes for a class take: paper or disk? When will the student receive the notes? Will the CART provider have time to edit the notes? Will the instructor also receive a copy of the class notes?

How will the CART provider contact the instructor or disability services coordinator or vice versa? For example, "If a teacher or professor is canceling class or is giving a test for which the reporter's services are not required, sufficient notice should be given if for nothing other than common courtesy" (Brentano et al., 2000, p. 25). A policy should also be established for when the student is unable to attend class.

**Think communication.** When possible, the instructor should write announcements, assignments, proper names, technical vocabulary, formulas, equations, and foreign terms on the blackboard (Battat, 1998). In addition, the instructor should not "talk to the blackboard" and have his or her back turned to the class all the time. And when using overheads or referencing material on the blackboard, the instructor should be specific when explaining concepts, formulas, or equations. For example, in a math class rather than pointing to the blackboard and saying, "You add this and this and get that," the instructor should say, "You add 5 and 4 and you get 9."

Just as the primary role of the realtime reporter in the classroom is to provide communication access, it is communication between the CART provider, student, instructor, and coordinator of disability services that will prove critical to the successful provision of this service.

**References** Andrews, J. (2000). Effective Classroom Participation. [Online] Available: <http://cart.ncraonline.org/testimonials/andrews.shtml>.

Arfa, R. (2000). Having the Right Cards. [Online] Available: <http://cart.ncraonline.org/testimonials/arfa.shtml>.

Auxiliary Aids and Services for Postsecondary Students With Disabilities (1998). Washington, D.C.: Department of Education Office of Civil Rights. [Online] Available: <http://www.ed.gov/about/offices/list/ocr/docs/auxaids.html>.

Battat, B. (1998). Teaching Students Who Are Hard-of-Hearing. Rochester, N.Y.: Northeast Technical Assistance Center, Rochester Institute of Technology. [Online] Available: <http://www.netac.rit.edu/publication/tipsheet/teachingb.html>.

Brentano, J., Larson, J., Werlinger, J., Hardeman, G., Graves, P., Eisenberg, S., Pfeifinger-Schact, K. (2000). Realtime in the Educational Setting: Implementing New Technology for Access and ADA Compliance. Vienna, Va.: National Court Reporters Foundation.

The CART Provider's Manual: A report of the NCRA Communication Access Realtime Translation Task Force (2001). Vienna, Va.: National Court Reporters Association. [Online] Available: <http://www.cartinfo.org/manual.html>.

Ginsburg, C. (2000). Performing Your Best With CART. [Online] Available: <http://cart.ncraonline.org/testimonials/ginsburg.shtml>.

Hartley, P. (2000). It's Simply Fair. [Online] Available: <http://cart.ncraonline.org/testimonials/hartley.shtml>.

How to Locate a CART Provider (2001). [Online] Available: <http://cart.ncraonline.org/consumer/locator.shtml>.

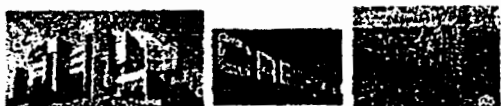
Nelson, A. (2000). Getting Everything. [Online] Available: <http://cart.ncraonline.org/testimonials/nelson.shtml>.

Stinson, M., Eisenberg, S., Horn, C., Larson, J., Levitt, H., Stuckless, R. (1999). Real-Time Speech-to-Text Services: A report of the National Task Force on Quality of Services in the Postsecondary Education of Deaf and Hard-of-Hearing Students. Rochester, N.Y.: Northeast Technical Assistance Center, Rochester Institute of Technology.

**Toxic or Metabolic  
Nervous System Disease**


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**Central Pontine Myelinolysis**

- Progressive spastic quadriparesis and lower cranial nerve palsies
- Discolored area in central basis pons
- Results from too rapid correction of hyponatremia or serum hypo-osmolality




MAGEUL/LADEUFS

HOERD/TRADEM/VADU

HOERD/MOL/TAOE

**Central Pontine Myelinolysis**

- Demyelinated area in basis pons with preserved axons and pontine neurons



LFB-PAS Stain for Myelin

**Methanol Ingestion**

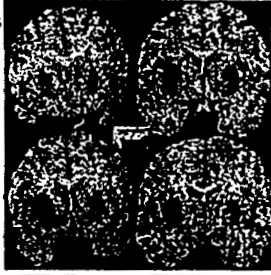
- Initial drunkenness, headache, abdominal pain, and visual loss, evolving into delirium and coma
- Methanol converted by hepatic alcohol dehydrogenase into formaldehyde and formic acid resulting in severe metabolic acidosis

JEFT/SHUPB

AAGS/PLAS/MIK

**Methanol Ingestion**

- Formic acid disrupts axoplasmic flow in optic nerve, resulting in optic disc swelling, axonal destruction, and permanent blindness
- Injury to putamen results in extrapyramidal movement disorders

**Ethylene Glycol Ingestion**

- Major constituent of automobile antifreeze
- Initial drunkenness, followed by generalized convulsions and coma
- Converted by hepatic alcohol dehydrogenase into glycolic acid and oxalic acid producing severe acidosis
- Oxalate crystal deposition
  - kidneys (uremia)
  - brain (chemical meningitis)

OBGS/LAET

GLAOEU/KLIK

OBGS/LEURE

WERN/KROE

KORS/KOF

**Wernicke-Korsakoff Syndrome**

- Wernicke disease (encephalopathy)
  - Acute disorder
- Korsakoff's psychosis
  - Chronic disorder after resolution of Wernicke disease

NAOEUS/MUS

**Wernicke-Korsakoff Syndrome**

- Wernicke disease (encephalopathy)
  - Abrupt onset of nystagmus and lateral rectus palsy progressing to external ophthalmoplegia
  - Truncal and gait ataxia
  - Global confusional state



NADE/SHAELU

**Wernicke Disease**

- Petechial hemorrhages, edema, gliosis, and demyelination:
  - Confusional state - mammillary bodies, hypothalamus, and periventricular thalamus (dorsomedial and anterior medial nuclei)
  - Ophthalmoplegia and ataxia - periaqueductal gray and gray beneath floor of fourth ventricle

**Wernicke-Korsakoff Syndrome**

- Korsakoff's psychosis
  - Anterograde amnesia - inability to form new memories despite intact immediate recall and remote memory
  - Confabulation - falsifying memories by "filling in" gaps in memory with information that sounds plausible but has little basis in reality

DE/HAEUD/NAEUS

**Korsakoff's Psychosis**

- Bilateral neuronal loss and gliosis of dorsomedial thalamus and mammillary bodies

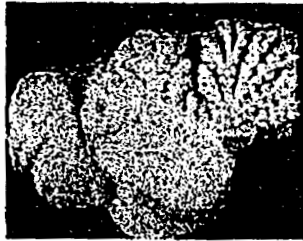
**Pathogenesis of Wernicke-Korsakoff Syndrome**

- Thiamine is cofactor for transketolase and Krebs cycle enzymes (pyruvate dehydrogenase complex and alpha-ketoglutarate dehydrogenase)
- Immediate treatment with high-dose parenteral thiamine during early Wernicke disease produces rapid dramatic improvement
- Neuronal death follows delay in thiamine administration resulting in Korsakoff's psychosis

ROFRL

**Alcoholic Cerebellar Degeneration**

- Truncal and gait ataxia
- Shrinkage of folia of superior (rostral) vermis and adjacent anterior lobe



MERBG/RAOE

**Mercury poisoning**

- Adults — personality disturbance and dementia (use of mercury in felt hat production resulted in descriptive phrase: "mad as a hatter"), cerebellar ataxia, intention tremor, and motor neuropathy

Furs used to make top hats were dipped in mercury nitrate solution as a preservative and to soften the animal hairs.



ABG/DEUPB/YAEU

**Mercury poisoning**

- Children — acrodynia (Pink disease): swollen, red, cold, moist hands and feet, irritability, insomnia, and anorexia
- Organic mercury can cross placenta causing mental retardation or cerebral palsy

**Mercury poisoning**

- Epidemics of mercury poisoning from eating treated seed grains.
  - U.S. wheat seed grain treated with methyl mercury compounds as a fungicide should have been planted, but instead was sold for milling and made into bread (despite being dyed red as a warning and having warning labels in English and Spanish [which most people could not read in the Middle East and Asia])
  - Particularly large epidemics in Iraq in 1958, 1960, 1971 and Pakistan in 1981

ADEU/RABG



MIN / MAEUT

**Mercury poisoning**

- Minamata disease
  - Term often used synonymously for organic mercury poisoning
  - Episode in 1950's involving seaside town of Minamata, on Kyushu Island in Japan
  - Initially abnormal behavior in animals; cats with writhing tremors and birds falling out of the sky
  - Human symptoms appeared several years later
  - Investigation revealed that acetoacetic acid company Chisso Corporation used mercury compounds as catalysts in plastic synthesis and discharged waste into the sea, where fish absorbed mercury. Fishing banned in 1957, but over 1000 people died and more than 20,000 had effects, including many children who had birth defects or were retarded.

TOEBG / FERL

**Vitamin E (Alpha-tocopherol) Deficiency**

- Peripheral polyneuropathy and ataxia (mimicking spinocerebellar degeneration), ophthalmoplegia, and pigmentary retinopathy.
- Associated with chronic malabsorption syndromes

KADOU / SHAOU

KADOU / SHU

**Vitamin E (Alpha-tocopherol) Deficiency**

- Demyelination of spinal cord posterior columns
- Axonal enlargements containing filaments, membranes, abnormal mitochondria, and granular material
- Excessive lipofuscin pigmentation of neurons, astrocytes, and muscle cells

**Vitamin B<sub>12</sub> Deficiency**

- Pernicious anemia
- Subacute combined degeneration of spinal cord
- Combined systems disease

METS02/MML/NE086

Vitamin B<sub>12</sub> Deficiency

- Loss of posterior column sensation (proprioception: vibratory and position sense)
  - Positive Romberg test
- Spasticity with bilateral extensor plantar responses (Babinski reflexes) and loss of tendon reflexes
- Depression, memory disturbance, and dementia

Vitamin B<sub>12</sub> Deficiency

- Elevated levels of methylmalonic acid in serum or urine
- Low serum vitamin B<sub>12</sub> levels
- Positive Schilling test
- Anemia (megaloblastic anemia), macrocytosis, or hypersegmented neutrophils

VABG/LAEVGS

Vitamin B<sub>12</sub> Deficiency

- Vacuolation and fragmentation of myelin followed by axonal degeneration

- Involvement of anterior, posterior, and lateral columns, centered in mid-thoracic spinal cord



LFB-PAS Stain for Myelin

QAPBG/DOETS

G<sub>M2</sub>-gangliosidosis

- Prototype autosomal recessive lipidosis
- Lysosomal storage disease
  - Deficiency of lysosomal hexosaminidase activity
- Deficiency of hexosaminidase A
  - Tay-Sachs Disease
  - Late-onset G<sub>M2</sub>-gangliosidosis
- Deficiency of hexosaminidase A and B
  - Sandhoff disease

H\*EBGS,  
AM/DAEVS

HAEUER/KRAEUT/BEULT HAEURP/KADUES

**Tay-Sachs Disease**

- Initially normal infant
- By age 3 months, develops hyperacusis, hyperexcitability, psychomotor retardation, hypotonia, macular cherry-red spot
- Progressive decerebrate posturing and opisthotonus
- Macrocrania and seizures
- Usually fatal before age 2 years

PS/THOT/  
NIUS

DE/SER/BRAUT

MAORBG/KRAEUPP/YAEU

**Pathology of Tay-Sachs Disease**

- Initial brain enlargement followed later by marked cerebral atrophy
- Ballooned neurons containing enlarged lysosomes with granular and lamellar storage material

**Neuronal Ceroid Lipofuscinosis**

- Group of disorders presenting from infancy to adulthood characterized by:
  - Autosomal recessive inheritance
  - Progressive cognitive deterioration
  - Seizures
  - Retinal abnormalities (pigmentary retinopathy)

SER/ROID

LEUP/FAOLL/NOEFS

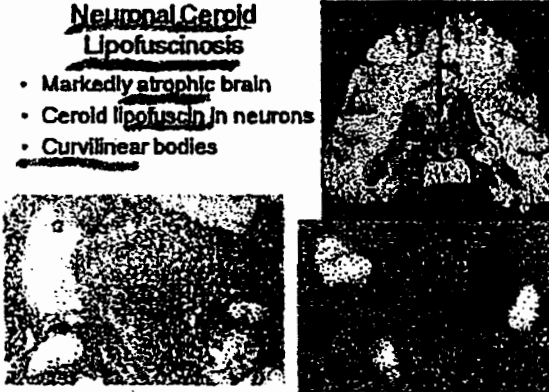
**Neuronal Ceroid Lipofuscinosis**

- Autofluorescent material (ceroid lipofuscin) stored in lysosomes of multiple organs:
  - Macrophages in spleen, liver, and lymph nodes
  - Smooth muscle cells of gastrointestinal tract, arterioles and arteries
  - Skeletal and cardiac muscle
  - Renal glomeruli and tubules
  - Neurons of brain and retina

AERT/OEL

**Neuronal Ceroid Lipofuscinosis**

- Markedly atrophic brain
- Ceroid lipofuscin in neurons
- Curvilinear bodies



**Metachromatic Leukodystrophy**

- Accumulation of sulfatide (galactocerebroside sulfate)
- Deficiency of enzyme arylsulfatase A which normally cleaves sulfate from sulfatide

GLABGT / BROE / S40EUD


MET / KROEM / TEUBG

**Metachromatic Leukodystrophy**

- **Late infantile** — progressive gait disturbance by age 2 years followed by truncal instability, visual loss (optic atrophy), peripheral neuropathy, quadriplegia; fatal after 4-5 years
- **Juvenile** — progressive gait disturbance and diminished school performance about age 6 years followed by spasticity, peripheral neuropathy, visual loss, quadriplegia, and death by late adolescence
- **Adult** — insidious onset in late adolescence or early adulthood of slowly progressive gait disturbance, behavioral problems, spasticity, and peripheral neuropathy

**Metachromatic Leukodystrophy**

- Cavitated white matter (sparing of U-fibers)
- Loss of oligodendrocytes and Schwann cells and myelin
- Granular masses of accumulated sulfatide in macrophages

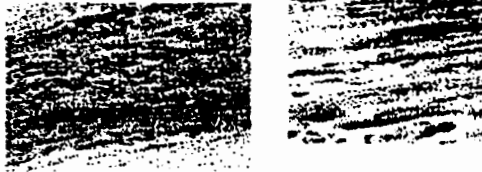


\*RES/L

PROBGS/SoEM/A\*L

**Metachromatic Leukodystrophy**

- Accumulated sulfide
- Stains metachromatically with toluidine blue or cresyl violet
- Metachromasia — color change when dye binds to certain compounds (distinguished from orthochromasia in which dye retains original color)

**Peroxisomal Disorders**

- Adrenoleukodystrophy/adrenomyeloneuropathy
  - Autosomal recessive
  - Single enzyme deficiency
- Zellweger's syndrome (cerebrohepato renal syndrome)
  - Autosomal recessive
  - Defective peroxisomal biogenesis
    - Resultant multiple enzyme deficiencies

DRAOEPB/LAOU\*BG/DWEUS/TRDEF

DRAOEPB/MAOEV/LNAOURP/THAOE

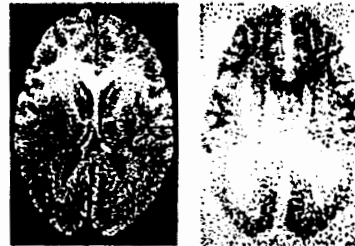
**Adrenoleukodystrophy and Adrenomyeloneuropathy**

- Spastic paraparesis and sensory loss
- Impaired bladder function
- Adrenal insufficiency
- Low serum testosterone levels
- Peripheral neuropathy

TEFT/TROEPB

**Adrenoleukodystrophy and Adrenomyeloneuropathy**



- Symmetrical demyelination of cerebral white matter, most severe in occipital regions



FAOEPB/L/KAOET/YAEX

**Phenylketonuria**

- Accumulation of phenylalanine due to lack of phenylalanine hydroxylase which converts phenylalanine to tyrosine
- Infants develop seizures, restlessness, rigidity, microcephaly, severe mental retardation, defective pigment formation results in fair skin, silvery blond hair, and blue eyes
- Virtually eliminated through newborn screening (Guthrie test)
- Treatment involves restricting phenylalanine intake in diet

GUTS02/THRADE



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CONSCIOUSNESS

Verbal Skills  
Nonverbal Skills

Organization

E

## The Neuropsychology of Court Reporting

Cure the Slowdown Blues Page 59 • Captioning Parentheticals Page 50



CONSCIOUSNESS

Verbal Skills  
Nonverbal Skills

# The Neuropsychology of Court Reporting

You always knew that your brain was working hard. Here is a scientific discussion of the brain of a court reporter.

Court reporters perform a function that illustrates the extreme complexity of the human brain. The human brain is truly a miracle that we take for granted in daily functioning, and, with a court reporter, the level of complexity is obviously extreme. The functions necessary for such a task are multifac-

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eted. The person must receive, comprehend, synthesize, and translate information instantaneously through a network of complicated brain mechanisms.

This is all done seemingly effortlessly, but when examining the skills necessary, the data argues for the great value of court reporters. This examination of the brain mechanisms also provides a more exact determination of the skills necessary, only capable by the amazing human brain.

To better understand what is involved, following is a brief description of the major brain functions as now understood, necessary for not only many daily human tasks, but especially for the high-level functioning involved in court reporting.

## Overview of the Brain

The brain is currently understood as involving systems rather than only specific areas. The major systems and their general role in cognitive functions are still being investigated; however, the general networks are now accepted as the basis of

the functioning brain. Ongoing research into the finer points deepens our understanding and provides new insights into the most complicated organ on the planet.

We know these areas of function from early clinicians and researchers but also from new technology such as PET and SPECT scans, as well as from neuropsychological assessment and research.

Cognitive skills involve "domains" that include overall global functions such as intelligence. Intelligence is broken down into two major cognitive domains of verbal and nonverbal. More than educational skills, intelligence is thought of as fluid thinking ability.

In addition, specific functions include memory, executive, speech and language, motor and psychomotor (fine motor dexterity, for example), attention, conceptual/reasoning, and sensory skills.

Today we realize that there are specific areas of the brain that are responsible for specific skills such as speech. The current thinking involves not only understanding the functions of specific areas of the brain but the major networks.

When performing a highly complex skill such as court reporting, we are referencing the executive functions. The executive skills involve the anterior or frontal networks. These skills include planning, organization, self-structure, regulation of behavior, and verification for both verbal and nonverbal behavior. The executive skills are dependent on intact structures of other functional systems or units in order to function. As we will see, these systems are built upon each other in a vertical manner.

## Functional Units of the Brain

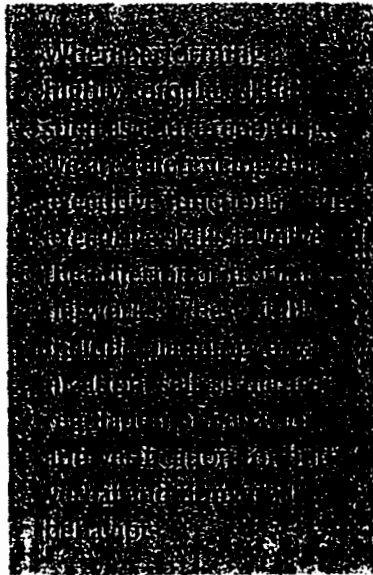
A.R. Luria, a professor of psychology at the University of Moscow, hypothesized three basic functional units involving both verbal and nonverbal skills.<sup>1</sup> His work was based on extensive research into the specific and general systems identified. The brain is also divided into right and left hemispheres connected by the corpus callosum, the connecting structures that allow the two hemispheres to communicate. Women appear to have a richer and more developed corpus callosum. Within the second and third functional units, there are primary, secondary, and tertiary zones that will be briefly elaborated.

### Functional Unit 1

This unit has the sole responsibility for consciousness and alertness, cortical tone, waking, and selective attention, which involves the law of strength. This is a part of the brain that is basic for survival.

The law of strength is a concept first proposed by Pavlov. The principle essentially states that strong stimuli evoke a strong response and weak stimuli, a weak response. In Attention Deficit

Hyperactivity Disorder, for example, we see this process disturbed. Usually because of subtle brain dysfunction, the law of strength is disorganized. Selective attention is usually disturbed with either hypo- or hyperactive activity. Persons with this disorder tend to habitually attend to irrelevant information. This system involves the ascending and descending tracts in the brain. The ascending tracts carry information to the higher centers and the descending tracts carry impulses to the lower centers of the brain which involves a number of functions, but one very important function is a regulatory influence of the cortex or higher brain on the lower centers as well as recruiting energy from the lower brain.



### Functional Unit 2

The second functional unit involves reception, analysis, and storage of information, both verbal and nonverbal.

The primary or projection zones facilitate reception and analysis at the basic or elementary level. This zone includes the occipital cortex (the surface and posterior gray matter), the temporal cortex necessary for discrimination of sounds and recall of sounds (the area on the lateral side behind the frontal brain), and the parietal cortex, which is necessary for sensory functions especially from motor sources (behind the temporal lobe).

The occipital cortex (surface) is an area of the brain responsible for visual recognition and discrimination of differences in subtle visual input such as letters or numbers.

The temporal cortex allows differentiation of and analysis of combinations of sounds, rhythmic recognition, spelling, and comprehension of speech and nonverbal cues. Damage to these zones usually results in spelling problems, poor retention of acoustic information, and decreased conceptual functions, including the ability to understand language and nonverbal cues.

From birth, most persons have neurons or nerve cells in this region that are specifically sensitive to sound. The secondary frontal region, or the premotor cortex, is responsible for complex, purposeful, and skilled movement. Motor skills are smoothed with normal brain function in this area with the assistance of the cerebellum. Speech is dependent on the left frontal region. Certain types of expressive aphasia occur with problems in this area of the brain. Damage to this area often leads to a deficit in speaking fluently. This is thought to be due to an inability to switch from one sound to another flexibly.

Secondary zones are associative in nature. They receive information from the primary zones and facilitate analysis, storage, and synthesis of sensation from various parts of the body. The tertiary zones are the overlapping regions that allow the various regions to communicate rapidly and effectively. They



are zones that overlap various sensory modalities and lead to complex mental activity. Simultaneous synthesis or symbolic and elementary information involving memory and organized patterns are involved at this level.

### Functional Unit 3

The third functional unit involves the anterior or frontal regions of the brain responsible for planning, organization, and verification of both verbal and non-verbal information received from the other functional units. This is the most recent evolutionary part of the brain in humans, allowing for more complex behavior.

The primary zones involve the motor strip or centers at the cortical or surface level. This region assists with complex synthesis of impulses into movement and organization of motor output.

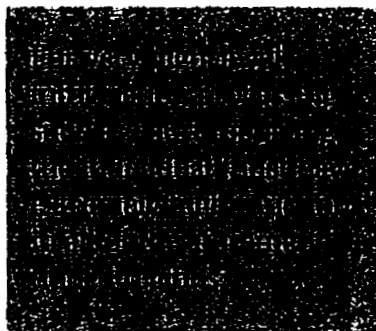
The secondary frontal zone involves the premotor cortex that is necessary for complex intentional movement. Writing difficulties are noted with damage to this area.

The tertiary region or the frontal region is necessary for motor and premotor output. Voluntary motor behavior, involving motor functions of the extremities or with motor speech, is dependent on this area of the brain. Intention, regulation, and verification of directed behavior involving planning are dependent on this area. There are strong associations with the speech centers with this tertiary region. Importantly, high-level attention is seen due to inhibition of excitation of irrelevant information. Complex organization is subserved by this area of the brain as well. Complex sequencing of information is processed in this region as well.

The frontal region of the brain is necessary for the third functional unit to exist. It is critical for any complex multifaceted functioning at a high level and certainly is involved with court reporting. The ability to sequence or automatically synthesize sound and motor skills is dependent on this zone. New learning is difficult if there are weaknesses in this area, because the individual is not able to verify and automatically make alterations.

## Court Reporting Processes

As is apparent, the brain is extremely complex and works together in larger systems or networks, while certain areas of the brain are responsible for specific skills. For very high-level information processing such as court reporting, the individual must have extremely high functions in all of the aforementioned regions.



First, the individual must have the Functional Unit 1 operating well in order to differentiate irrelevant from relevant information and be able to differentiate sounds.

Second, sound is detected by the temporal lobe on the left and recalled long enough to be stored and quickly transferred to the association areas for comprehension and meaning of the combinations of sound. This information is then sent to the visual centers of the brain for integrating sounds and symbols, long ago blended into units of sounds and visual symbols to make words. In the learning stages in childhood, there is a visual component involved as well. For example, a child recognizes a chair visually, later learns the sounds for the word "chair," then automatically can speak about a chair without conscious awareness of the visual component, using speech to communicate. We use gestures to augment this visual component.

Once the information is decoded or understood, it is then sent to the frontal networks for motor output. In the case of a court reporter, a very rapid fine mo-

tor output is necessary for information already heard, comprehended, and processed.

In summary, the sounds have to be processed by the temporal lobe, retained long enough to be encoded or stored, then sent to the association areas for understanding, then sent to the occipital lobe for the already learned sound blending into words, and then sent to the cerebellum, which helps to integrate and smooth the process. The information is then sent to the motor area for output and is simultaneously verified by the frontal network for accuracy. Changes are made instantaneously, all the while sequencing with new information to be input and processed. This process involves complex attention referred to as divided attention and working memory. Divided attention involves performing one task while holding another competing piece of information in memory. In the case of a court reporter, dealing with already spoken information and simultaneously processing the immediate incoming information is synthesized automatically.

With realtime reporting, the complexity is increased. The reporter must possess the immediate ability to process not only at the level described but with an extremely high level of sophistication, have superior language skills in a number of subject areas, and automatic sequential skills. Interspersed in this complex network is the ability in language to make subtle differentiations of the complex English language.

Court reporting involves extremely well-developed cognitive flexibility, sequencing, and multifaceted processing of language, sensory integration, and motor skills at a high level of sophistication. While technology makes the delivery of information possible, the most important feature in the process is the highly functional system represented by all three functioning units interdependent in the amazing human brain. ■

<sup>1</sup>Luria, A.R. (1973). *The Working Brain: An Introduction to Neuropsychology*.

to wonder if they are with the larger community or not."

And, he added, if the rabbi tells a joke and everybody laughs, the CART reporter can write "laughter in the room," so someone who can't hear that or is not aware it is happening can at least read and know what's going on. "It does not give the deaf person the equivalent of the hearing person's experience of synagogue, but it gives the deaf person a whole lot of access," said Leigh.

The service is provided this year by the Open Captioners, a Montclair business owned by town resident Randi Friedman, a nationally certified CART provider. She is providing the services at a reduced rate, and Bnai Keshet also received a grant from MetroWest ABE, a consortium of lay leaders and professionals representing the special-needs community.

Last year, the effort was sponsored by the Jewish Deaf and Hearing Impaired Council, which may still offer support again this year.

*Johanna Gisberg is a staff writer with the New Jersey Jewish News. This article is reprinted with permission.*

## BEYOND THE COMFORT ZONE

# Accuracy of Sign Interpreting and Realtime to Deaf Students

BY MONETTE BENOIT

**L**ast month I shared "A Number of Firsts in Science Education with Karen Sadler, Ph.D." Karen created 'firsts,' graduating with a bachelor's in neuroscience and acceptance to the Center for Neuroscience at the University of Pittsburgh for graduate work.

Karen was born severely hard of hearing. She lost almost all hearing by 1991 and had a cochlear implant that failed. Then Karen "had to learn American Sign Language to be able to get information in school." Karen Sadler used ASL while

working on her bachelor's and master's degree. When she started her Ph.D. work, Karen began to work with CART providers. Now we share details within Karen's May 2009 science education doctoral work, "Accuracy of Sign Interpreting and Real-Time Captioning of Science Videos for the Delivery of Instruction to Deaf Students."

As a preface to Karen Sadler's doctor of philosophy work, I want to share that the term "Deaf" (big D) is a reference for individuals who typically use sign language as their first language. My opinion is this detail will assist court reporters and students to have a greater understanding within Karen's research. I'll let her tell you about her research.

## RESEARCH ON ASL AND REALTIME EFFICACY

When I started, I worked on the interpreters first. Interpreters were easy to find. I had a horrible time for two years with different people I hired to 'translate' tapes with me. One person did hardly anything with the tape for a year, and a professional interpreter I know also didn't do much of anything with it for a year. I ended up translating the majority of the interpreter tapes with assistance. CART personnel were easier, except trying to find them. I located some via word of mouth but had to talk to a couple of groups that do court reporting here. They were all very professional.

In a silent world, Deaf students must rely upon others to get their information in the classroom, especially in public school classrooms, where teachers will be unfamiliar with American Sign Language and cannot spend significant time teaching one student with special needs.

It has become necessary to use third-party communicators to convey classroom information. Until recently, sign language interpreters were the usual choice for Deaf students.

With the advent of the computer and court reporting, more and more Deaf students in college, as well as Deaf professionals, are choosing to use court reporters in the classroom.

The drive is on to utilize court reporters in schools from K through 12. But just because third-party communicators are available in a classroom does not guarantee accuracy of delivery, especially in classrooms involving science and math.

With the continuing closure of schools for the Deaf in the United States and the placement of these Deaf students into public schools, it has become necessary to find means to ensure these students obtain the same amount and the same quality of information available to their hearing peers.

Steno-based services are becoming more common in secondary schools, but research is needed to determine how accurate the information is that these students are receiving, especially since Deaf students continue to have problems meeting national standards in science and math.

Since Deaf students must rely upon support services, such as interpreters and steno-based systems, it was obvious that the first step was to find out exactly how much science information is actually conveyed to the Deaf students.

In my study, several NASA videotapes were used. Each interpreter and captioner were tested separately.

My dissertation abstract stated:

The purpose of this study was to quantitatively examine the impact of third-party support service providers on the quality of science information available to Deaf students in regular science classrooms. Three different videotapes that were developed by NASA for high school science classrooms were selected for the study, allowing for different concepts and vocabulary to be examined. The focus was on the accuracy of translation as measured by the number of key science words included in the transcripts (captions) or videos (interpreted).

Interpreters were videotaped, so that what they signed could be documented and translated.

CART personnel delivered their transcript to me. They were not allowed to correct their mistakes because I wanted to see exactly what Deaf students would see in the classroom.

Many Deaf students lag in reading skills and would not read the voluminous notes given to them. So what they obtained in the classroom, on the screen from a steno-based system, would be the information they would retain.

Three people involved in science scored the transcripts. The number of key science words correctly delivered by each individual and each group was counted.

There was a significant difference between what the interpreters were able to deliver versus what the captioners delivered.



## REPORTING

CART providers had an accuracy rate of 98 percent compared to the interpreters' accuracy rate of 73 percent and were found to be significantly more accurate in the delivery of science words as compared to sign language interpreters in this study.

The few mistakes made by CART providers were probably due to the fact that most often the software program used a legal dictionary, and certain science terms were not recognized by those dictionaries.

Background information provided by all the participants indicated that the amount of training received by court reporters, as well as the fact that the training is standardized across the nation, made a huge difference in the information that would be conveyed to Deaf students.

Interpreters for the Deaf do not receive the same quality of training, nor are they required to meet the same national standards. It varies from state to state and from certification program to program.

So, according to this information from this study, does that mean schools should rush out and hire court reporters instead of sign language interpreters for Deaf students? Not necessarily.

Deaf students come at the English language later in life than hearing students. Their vocabulary is often smaller, and the reading skills required to follow a steno-based system in the classroom may make these systems difficult for some students to follow. It has yet to be determined if and how much realtime captioning improves learning in Deaf students.

One thing that will determine how much these systems can be used in secondary classrooms is the speed with which the student will see the captioning on the screen. Previous research has shown that the faster the rate of captioning, the less understanding there is of the material. Information that is moved too quickly off the screen not only decreases comprehension, but frustrates Deaf students. If students can be given some type of control over this rate, it may allow for more complete understanding.

Equal access and opportunity in education for Deaf students will not be achievable until they are able to receive the same information as their hearing peers. Since they depend upon information given to

them through third-party communicators, it is vital that that information is correct.

This preliminary research demonstrates that steno-based systems could increase the amount of information that Deaf students receive in public classrooms, and that would probably lead to better achievement in science and math on standardized tests.

JCR Contributing Editor, Monette Benoit, B.B.A., CRI, CPE, may be reached at [www.CRRbooks.com](http://www.CRRbooks.com) and [www.ARTCS.com](http://www.ARTCS.com). Karen Sakder, Ph.D., may be reached at [kseduethics@hotmail.com](mailto:kseduethics@hotmail.com). Her dissertation can be accessed at <http://etd.library.pitt.edu/ETD/available/etd-07212009-201144/>.



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## **VITA**

**Peter J. Seiler**

### **EDUCATION**

**College:** Attended Lewis College (Romeoville, Ill.)  
Graduated: June, 1967  
Degree: Bachelor of Arts  
Major: English with minors in Social Studies and Education  
Activities: Dean's List, Varsity Wrestling, Letterman Club, Dormitory Hall Proctor, College newspaper reporter

Attended DePaul University (Chicago, Ill.)  
Graduated: June, 1970  
Degree: Master of Arts  
Major: Deaf Education

Attended Illinois State University (Normal, Ill.)  
Graduated: October, 1980  
Degree: Doctor of Education  
Emphasis: Educational Administration with additional studies in Special Education Administration  
Dissertation: Experiential Factors Affecting Integration of Special Needs Students

### **EXPERIENCE**

<b>July, 2009 To Current</b>	<b>Nebraska Commission for the Deaf and Hard of Hearing Lincoln, Nebraska Executive Director</b>
<b>Duties</b>	<b>Recommends strategic goals and policies to the Board; develops and monitors the budget; carries out the policies and regulations of NCDHH as formulated by the Board and the Legislature; develops programs and marketing plans to ensure client services are delivered in an effective and efficient manner. Oversees the five strands of services of the Commission: Advocacy, Equipment and Technology for Deaf and Hard of Hearing people, Mental Health Services, Hearing Aids Assistance, and</b>

Interpreter Certification, Licensure, and Development. Acts as spokesperson for the Commission with the community and the Legislature.

May, 2001  
To  
June, 2009  
Kansas School for the Deaf  
Olathe, Kansas  
Director of Student Life

Duties: Responsible for Residential Services Program and Athletic Programs. Responsible for developing school-wide technology plan. Responsible for staffing pattern and hiring, training, and evaluation procedures. Planning, directing, and evaluating staff, curriculum, and programs. Planning, implementing and monitoring division budget. Applying school, state, and federal policies, rules and regulations to current situations.

April, 1995  
to  
September, 2000  
Arkansas School for the Deaf  
Little Rock, Arkansas  
Superintendent

Duties: Responsible for K-12 educational programs, State-wide outreach programs, Deaf/Blind program, residential and after-school programs. vocational/technological educational programs, and special needs/multi-disabled student educational and functional training programs. . Responsible for staffing pattern and hiring, training, and evaluation procedures. Planning, directing, and evaluating staff, curriculum, and programs. Planning, implementing and monitoring budget including interacted with the state legislators to secure sufficient funding for the school. Budget includes state appropriations and federal grants. In addition, worked with local restaurants in conjunction with the ASD's annual fund-raiser activity. Applied school, state, and federal policies, rules and regulations to current situations. Served as the school's spokesperson when interacting with the media, the legislators and the community

September, 1989  
to  
March, 1995  
Illinois School for the Deaf  
Jacksonville, Illinois  
Superintendent

Duties: Responsible for K-12 educational programs, State-wide outreach programs, Deaf/Blind program, residential and after-school programs. vocational/technological educational programs, and special needs/multi-disabled student educational and functional training programs. Responsible for staffing pattern and hiring, training, and evaluation procedures. Planning, directing, and evaluating staff, curriculum, and programs. Planning, implementing and monitoring budget which includes both state appropriations and federal grants. Applying school, state, and federal policies, rules and regulations to current situations



November, 1984      Nebraska School for the Deaf  
to                      Omaha, Nebraska  
September, 1989      Administrator II (Campus Administrator)

**Duties:**              Responsible for K-12 educational programs, athletic and physical education programs, vocational/technological educational programs, and special needs/multi-disabled student educational and functional training programs. Responsible for staffing pattern and hiring, training, and evaluation procedures. Planning, directing, and evaluating staff, curriculum, and programs. Coordinate and implement IEP, assessment procedures, and due process procedures for enrolled students. Served as case manager for all IEPS at the school. Assist in the planning, implementing and monitoring of departmental budget. Applying school, state, and federal policies, rules and regulations to current situations. Coordinate Summer Parent Workshop and supervised outreach programs. Served as the curriculum director. Served as acting administrator for the Nebraska School for the Visually Handicapped, 1988.

May, 1978              National Technical Institute for the Deaf  
To                      At the Rochester Institute of Technology  
November, 1984      Rochester, NY  
Chairperson of various departments

**Duties:**              Served as department chairperson for support services for the College of Liberal Arts. Established and served as the chairperson for Physical Education and Athletic Support Department. Served as the coordinator of staff training for the National Technical Institute of Technology. Responsible for selecting and evaluating staff. Responsible for department budget development and monitoring. Along with regular duties, taught college level courses and served on numerous planning, curriculum, search, and research committees.  
Received tenure: 1984  
Promoted to Associate Professor: 1984

August, 1975          Illinois State University  
to                      Normal, Illinois  
May, 1978              Instructor, Department of Special Education

**Duties:**              Served as an instructor in preparing students to become teachers of the Deaf and the Hard of Hearing. Taught professional core courses in Deaf Education. Served as supervisor for practicum and student teaching experiences in public and residential school programs.

September, 1972      Hinsdale High, South, District #86  
to                      Darien, Illinois  
June, 1975            Teacher

Duties:            Taught high school deaf and hard of hearing students primarily English and reading. Also taught career orientation courses. Served as resource teacher for the deaf and hard of hearing students who were placed in regular classrooms. Served as vocational counselor. Served as Jr. IAD/NAD advisor.

September, 1969      Indiana School for the Deaf  
to                      Indianapolis, Indiana  
August, 1972        Teacher

Duties:            Taught high school deaf and hard of hearing students in English, Reading, and special topics/ Served as Jr. High football and wrestling coach. Served as Senior Class advisor and Student Council sponsor.

September, 1967      St. Patrick High School  
to                      Chicago, Illinois  
June, 1968            Teacher

Duties:            Taught high school English and Literature

## **ADDITIONAL EMPLOYMENT**

Able Hands, Kansas City, MO, Instructor for Sign Language Interpreters; gave two presentations to interpreters in KC area for their CEU

- 1) Vocabulary Development with signs focusing on political vocabulary and governmental signs
- 2) Classifiers

Maplewood Community College, North Kansas City, MO, Sign Interpreting Program, Instructor, American Sign Language (2008)

MacMurray College, Jacksonville, Ill., Adjunct Instructor, American Sign Language

University of Nebraska at Omaha, Omaha, Neb., Adjunct Associate Professor in the Department of Counseling, Special Education, and Speech Pathology. Courses taught included: Teaching Content Subjects to Hearing Impaired, Bi-lingual/Bi-modal Language Development and Curriculum, Sign Language. Developed course outline for *Sociological Impact of Deafness*.

Indiana School for the Deaf, community sign language classes for parents and community members.

Hinsdale High , South, community sign language classes for parents and community members.

Lombard Adult Education, community sign language classes for parents and community members.

Chicago City College, Adult Education Division, English for Deaf Adults

## **PROFESSIONAL CERTIFICATES AND LICENSURES**

Nebraska Interpreter License: Licensed as Deaf Intermediary Interpreter

Kansas Teaching Certificate:

Deaf Education, Building Administrator, English (7-12), District Administrator

Arkansas Teaching Certificate:

Deaf Education, Superintendent, Secondary Principal

Illinois Teaching Certificate:

Secondary English, Deaf and Hard of Hearing, Principal, Administrative, Superintendent, Approval for Special Education Director

Nebraska Teaching Certificate:

Secondary English, Hearing Impaired, Principal, Special Education Supervisor, Superintendent

Council on Education of the Deaf

Professional Certificate for Administration

Convention of American Instructors of the deaf

Class A – Permanent

## **CONSULTATIONS**

Great Bend School District (KS) – served as a consultant to advise on behavior management for a Deaf child. (2008)

Law Firm of Davenport, Evans, Hurwitz, and Smith, LLP (Sioux Falls, SD), specifically Melissa Hinton, re: the matter of Tracey L. Etchey, et al, vs. Dr. Jon C. Green, et al (2008)

Kansas State Department of Education; member of Committee to develop indicators for American Sign Language as a part of the World Languages (foreign languages allowed to be taught in school for credit) (2008)

**Kansas State Department of Education; member of committee to develop deaf education guidelines for K-12 and special education programs in Kansas (2008)**

**State of Louisiana: Task Force to Review Policies and Standards for the Louisiana School for the Deaf, Louisiana Department of Education (1999-2000)**

**State of Arkansas: Steering and Development Committee: develop and implement policies and procedures for distribution of TDD and other telephone assistive devices; and also develop eligibility determination for the distribution. (2000)**

**Law Office of Kenneth C. Chessick (Schaumburg, Ill.) re: the matter of Mendoza vs. Pepa, et. al. and Deberry vs. Sherman Hospital, 1990; re: the matter of Bovini vs. Delnor Community Hospital, et. al., 1992, 1996-1999)**

**Jacksonville (Ill.) School District #117, Referendum Steering Committee (1994)**

**Law Firm of Joel M. Goldstein and Associates (Chicago, Ill.), specifically Sandra Weber, re: the matter of Dosch vs. Children's Memorial Hospital, et al. (1994)**

**Illinois State Board of Education: Teacher Certification Review Committee (deaf education certification requirements) (1992-1995)**

**Illinois Interagency Task Force for Hearing Impaired/Behavior Disordered Children (1991-1995)**

**Nebraska Department of Education: Interagency Task Force – served as a consultant in defining and recommending ways that agencies can interact and exchange services, resources, and programs (1988-1989)**

**Nebraska Department of Education: Consolidation Committee – served as consultant in investigating the possible merger of the Nebraska School for the Deaf and the Nebraska School for the Visually Handicapped; and the Nebraska School for the Deaf and the Iowa School for the Deaf; chaired the Fiscal Analysis sub-committee and the Curriculum sub-committee (1985-87)**

**Nebraska Department of Education, Verification Guidelines Committee – served as consultant in developing verification guidelines of handicapping conditions and in particular hearing impairment for inclusion into the State Rules and Regulations, 1986**

**Nebraska Department of Education, Special Education Advisory Council, served as technical advisor to the Council on matters related to special education service models and to residential programming, 1985-88.**



University of Nebraska at Omaha – provided consultation to the Department of Counseling and Special Education in its efforts to acquire CED endorsement, 1985-86.

Rochester Catholic Diocese (NY), Commission on Religion Education of Deaf Children – assisted in developing and evaluating curriculum and textbook evaluation and selection, 1982-83.

Genesco School District (NY), - consulted the faculty on integrating deaf students in their classrooms, assisted teachers in ways of maximizing deaf/hearing student interaction and learning, recommended instructional strategies for the deaf students, 1981.

Jamestown School District (NY) – provided consultation to Special Education Director on appropriate testing, curriculum, instruction, and programming for deaf students, 1980.

New York State School for the Deaf (Rome, NY), - consulted on teacher in-service training, appropriate counseling program, small scale program evaluation, and student perceptions, 1979.

Illinois Office of Education – served as chairperson of the task force on Appropriate Educational Environment for the Hearing Impaired, 1977-78.

## **POLICY BOARDS**

National Fraternal Society of the Deaf; member of Board of Directors, Secretary/Treasurer of the Board of Directors (2004 to 2010)

State of Arkansas, Telecommunication Assistance Program, Advisory and Policy Committee, Arkansas Rehabilitation Services (1997 – 2000)

Eades Home for Multi-disabled Women and Men (Jacksonville, Ill.), board member and Secretary (1989-1995)

Monroe County Association for the Hearing Impaired (Rochester, NY), board member and president (1980 – 1984)

New York State Education Department, State Advisory Panel for the Education of Children with Handicapping Conditions, member (1978-1980)

## **PROFESSIONAL AND SOCIAL ACTIVITIES**

Arkansas Association of the Deaf: Treasurer (1995-98)

Arkansas Association of Educational Administrators: Member

City of Olathe: member, Diversity Council; member, Persons with Disabilities Advocacy Board  
Conference of Educational Administrators Serving the Deaf: current  
Gallaudet University Regional Center – Johnson County Community College:  
Advisory Board: Member (1988 – 1997)  
Illinois Association of the Deaf: Member and Officer (president, vice-president, Secretary)  
City of Olathe, member of Diversity Committee (2002-2008)  
Member of Persons with Disabilities Advocacy Board (2007-present)  
National Association of the Deaf: Member (current)  
National Fraternal Society of the Deaf: Division #5: President (1997 to 2001)  
University of Nebraska at Omaha: Advisory Council to Department of Special Education and Counseling: Member (1981-1983)

### **AWARDS AND HONORS**

National Fraternal Society of the Deaf: NFSD Scholarship Award (1975)  
Gallaudet University Alumni Association Scholarship Award – two year grant to pursue doctoral work (1976-78)  
Monroe County Association for the Hearing Impaired: Certificate of Appreciation (1983)  
The Health Association of Rochester and Monroe County, Inc.: Award for Outstanding Community Service in Meeting Human Needs (1983)  
Nominated as candidate for the Rochester Institute of Technology Eisenhart Award for Outstanding Teaching (1984)  
Received tenure and promotion to Associate Professor from the Rochester Institute of Technology (1984)  
Nebraska Educators of the Hearing Impaired: Award of Appreciation for Service (1987)\  
Boys Town National Institute: Certificate of Appreciation (1987, 1988)  
Nebraska State Board of Education: Resolution in Honor of Service (1989)  
Lewis University (Illinois): Distinguished Alumnus Award (1992)  
Alvin Eades Homes and Center, Inc.: Recognition Award (1995)  
Illinois Senate: Certificate of Recognition for services to the Deaf and Hard of Hearing people of Illinois (1995)  
Nebraska School for the Deaf: Order of the Tiger (1995)



**City of Little Rock (Arkansas): Certificate of Appreciation (1995)**

**Sertoma Club of North Little Rock (Arkansas): Certificate of Appreciation (1996)**

**Arkansas Association of the Deaf: Golden Torch Award (1999); Meritorious Service Award (2001)**

Peter J. Seiler  
May 29, 2010

## **Knowledge and Experience:**

My vita contains a comprehensive picture of my knowledge base, training, and experience. However I do want to point out the Nebraska Commission for the Deaf and Hard of Hearing provides sign language interpreter assessment for Nebraska certification and also issues Nebraska licenses for sign language practice in Nebraska. As the Executive Director for the Commission, I am in a unique position to regulate the practice of sign language interpreting for the Deaf and Hard of Hearing people.

I also am a licensed interpreter in the state of Nebraska. Nationally, there is a Certified Deaf Interpreter from the Registry of Interpreters for the Deaf (see discussion on RID elsewhere in this report). In Nebraska, Deaf people who choose not to get a national certification (CDI) but want to be an interpreter can get a QAST Deaf Interpreter (QDI) license. My license allows me to serve as the QDI interpreter when a Deaf person presents a situation where it is best to use a native or near native user to help the Deaf person communicate. In that situation, a hearing interpreter may request the assistance of a CDI/QDI interpreter. This is especially true for court or medical situations. CDI or QDI interpreters are also used to assist Deaf-Blind people in their efforts to communicate with the sighted and hearing world.

Of special note is the fact that, prior to moving to Nebraska, I have served as a Deaf interpreter in other states (Illinois, New York, Arkansas, and Kansas). Those states did not offer a state certification program for Deaf interpreters.

Finally, I am a consumer of sign language interpreting which means I use this service to perform the duties of my position. I need to integrate information for any given situations from a variety of people such as the Governor, state legislators, court personnel, Board of Directors members, staff members, clients, and so forth. This obviously means that I must receive information consistently, accurately, and simultaneously. As the manager for the Nebraska Commission for the Deaf and Hard of Hearing, I encounter situations where confidentiality is critical and required. Because of my deafness, I rely on the use of sign language interpreters to convey and transmit information from the other person(s). I also use sign language interpreter when meeting with my personal physician or other medical doctors for care and treatment of my health.

Thus, my insights developed and influenced by my position as the executive director and as a consumer coupled with my experiences as an interpreter enable me to comment on the use of sign language interpreting for effective and efficient communication between a person who has a hearing loss and a person who can hear but cannot use sign language. My experiences allow me to offer insights into the profession of sign language

*Peter J. Seiler*



interpreting and in particular the issues of confidentiality and of third party participation. I can also explain how a person becomes certified and licensed in Nebraska.

### **Registry of Interpreters for the Deaf (RID):**

The Registry of Interpreters for the Deaf (RID) is a non-profit national organization in which they operate a national certification program for sign language interpreters. The most important function that the RID provide is to uphold standards, ethics, and professionalism for the sign language interpreter nationwide. The RID developed a Code of Professional Conduct (CPC). The Code is actually a set of tenets that apply to their members and interpreters certified by the RID. The Nebraska Commission for the Deaf has adopted the Code of Professional Conduct for their interpreters who receive a state certification and/or are issued a license in Nebraska. If an interpreter is found to have violated one or more of these tenets, that interpreter may have his/her license or certification revoked by either the RID or the Nebraska Commission for the Deaf and Hard of Hearing.

The tenets are:

1. Interpreters adhere to standards of confidential communication.
2. Interpreters possess the professional skills and knowledge required for the specific interpreting situation.
3. Interpreters conduct themselves in a manner appropriate to the specific interpreting situation.
4. Interpreters demonstrate respect for consumers.
5. Interpreters demonstrate respect for colleagues, interns, and students of the profession.
6. Interpreters maintain ethical business practices.
7. Interpreters engage in professional development.

### **The Nebraska Certification and License Procedures:**

The Nebraska Legislature set up the interpreter certification and licensure in Nebraska through Nebraska Revised Statute 20-150-159. The law established a board called the Interpreter Review Board. This board has the authority, under Title 96, Chapter 1, 010.01, to deny, refuse to renew, limit, revoke, suspend, or take other disciplinary actions against a license when the applicant or licensee is found to have violated any provision of sections 20-150-20-159, or sections 71-4728 to 71-4732 or any rules established by the NCDHH governing unprofessional conduct.

The applicant for certification and/or license submits an application. After receiving the application, NCDHH schedules a written test which covers various ethical situations to assure the agency that the applicant is able to protect the confidentiality and professionalism of his/her position. After passing the written test, the applicant then makes arrangement to take the Quality Assurance Screening Test (QAST) which is the





state's assessment tool of the person's ability to accurately transmit information from signed message to English and from spoken English to signed message.

The QAST is given to the candidate at a location selected by NCDHH but usually in the Omaha office. The candidate is videotaped during the performance test. After the candidate has completed the performance test, the video of that performance is sent to an outside private reviewing agency. The reviewers determine the level of skill and reports that back to NCDHH.

More information can be found on the website:  
<http://www.ncdhh.ne.gov/interpreterdevel.html>

### **Third Party Concerns:**

Creighton University School of Medicine has presented a set of technical standards that supposedly assures that the medical students are developing skills and knowledge to eventually practice medicine in Nebraska or any other state in the United States. Creighton University School of Medicine has stated that the standard #B. Communication is the source of disagreement with Michael Argenyi. It appears to be their contention that the use of an interpreter will mediate Michael's judgments when dealing with patients. Because of this statement (3<sup>rd</sup> paragraph, page 7), Creighton is refusing to provide interpreting services to Michael.

Based on my experiences and knowledge, I disagree with Creighton University's position. The use of the interpreter will not mediate or mitigate any information nor negatively influence the doctor's judgment. The interpreter is not allowed to offer opinions or observations about the situation between the deaf person and the hearing person. Nor can the interpreter even discuss his/her experience outside of the interpreting situation. The interpreter has to follow the same strict code of confidentiality that a medical doctor has to follow. In short, the interpreter's only role is to facilitate communication between the deaf person and the hearing person. The deaf person then needs to take that information and make his or her judgment on how to use the information.

### **Role of Interpreter:**

The interpreter's main function is to facilitate communication between the deaf person and the non-signer. While there are technological devices available, these devices do not allow for interactive communication. People will find that using a sign language interpreter will provide better interaction and more simultaneous interaction. The interpreter also can identify who the speaker is or where the noise is located. This will help the deaf person participate better in large and small group discussions. Thus using an interpreter would facilitate communication rapidly and allow for better discussion and exchange of ideas, thoughts and opinions.

## **Communication Access RealTime Translation (CART)**

Communication Access Realtime Translation (CART) shows everything that is said as a "caption" on a screen for Deaf and Hard of Hearing people to read. It is especially useful for classrooms, plenary sessions or keynote sessions at a conference, or churches.

The CART provider has the same training as the court stenographer. The CART provider uses the same devices but hooks it through the computer to an LCD projector. The computer enables the CART provider to store words that may be used in the presentation to better retrieve it during the presentation.

The CART provider types almost simultaneously what is said into the stenotype machine using a form of shorthand. The computer translates that shorthand into realtime captions. The process can be very quick and have a short lag time. "Lag time" means the time it takes the CART provider to hear and understand what is being said and transmits that into the stenotype machine.

The CART option has the advantage in that the Deaf or hard of hearing person can read what is being said and can pick up vocabulary from the CART captions. I think it is especially advantageous to a person attending a class where there is a lot of technical material.

## **Cued Speech:**

The National Cued Speech Association has stated that cued speech was developed to aid the acquisition of literacy skills in deaf students. Cued speech is not a language but instead shows visually the phonemes (consonants and vowels) of spoken language. In other words, it is more of a communication tool. It does rely on the person receiving and the person communicating to know how to combine the phonemes to make a word. Cued speech proponents feel that deaf and hard of hearing people can learn to break down a word similar to the way hearing children learn English.

## **American Sign Language:**

American Sign Language is a visual language that is now recognized in many states as a world language. That means it can be taught in the schools as course elective or requirement for graduation. To adequately explain American Sign Language (ASL) would require pages and take considerable time. Suffice it to say that ASL conveys the same concepts as other spoken language such as English and Spanish. ASL is not a primitive language. It is not English anymore than Spanish is English. A sign may represent a one-word concept such as "house" or it may represent a phrase such as "what's up?". Research studies have shown that deaf children who start with ASL tend to do far better academically. ASL has its own semantics, syntax, and grammar. As with any other language, ASL grows and changes. Being a natural language, ASL has



many of the same components as the English language: phonology, morphology, semantics, and syntax. It is a visual language in that the information is expressed not with sounds but with hand shapes, physical location in relation to the body and facial expressions. It is deemed an advanced language in that it can express abstract thoughts.

### **Manually Coded English:**

Michael Argenyi indicated that he is not fluent in American Sign Language. Therefore he requested a different kind of interpreter. He specially asked for a Cued Speech interpreter. Those individuals are hard to find as Cued Speech is not often considered for interpreting. Instead, I suspect that Michael would benefit from using an interpreter who can use a form of Manually Coded English. The most common forms are Signed English and Conceptually Accurate Signed English (CASE). Most interpreters can do CASE.

Signed English systems try to match the word used with a variety of signs. Advocates feel that deaf and hard of hearing children can learn English the same way as hearing children. The arguments are similar to those presented by Cued Speech supporters. Using Signed English requires the person to add to the root signs the endings such as the word "really". The word "really" in Signed English would be signed using the root sign for "real" and then spelling LY immediately after that.

Conceptually Accurate Signed English means that the person is using ASL vocabulary in English syntax. Basically, the interpreter is making sure the concept used in English is expressed still in ASL by selecting the sign that approximates that concept but making sure that the English sentence structure is used.

Michael would benefit from using CASE because he can use CASE as a support cue system when he lipreads the speaker. He also can rely on the interpreter for those speakers who are seated behind him which prohibits him from lipreading them. This is especially true in a small discussion group where the discussion tend to be rapid fire and not contingent on a moderator to identify turn taking.





**Peter J. Seiler**  
**Legal Consulting Fee Schedule**

1. Reading materials and preparing written opinions \$150.00 an hour
2. Phone and in person meetings \$175.00 an hour
3. Depositions and Court Appearances \$200.00 an hour
4. Mileage: .50 per mile
5. Motels are arranged and paid by the hiring agent.
6. Meals will be receipted.
7. Expenses incurred will be receipted where possible
8. Sign language interpreters will be receipted or arranged by the hiring agent

JUN-16-2010 13:30

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**CURRICULUM VITAE**

**Name:** Britt Ashley Thedinger, M.D.

**Business Address:** EAR Specialists of Omaha  
9202 West Dodge Road, Suite 200  
Omaha, Nebraska 68114  
(402) 933-3277  
  
415 E 23rd St.  
Fremont, NE 68025

**Home Address:** 9968 Spring Street  
Omaha, Nebraska 68124  
(402) 393-6238

**Date of Birth:** July 4, 1957  
**Place of Birth:** Kansas City, Missouri  
**Citizenship:** U.S.A.  
**Sex:** Male  
**Marital Status:** Married  
**Spouse's Name:** Kelly  
**Children:** Britt Ashley Jr., Ainsley Elizabeth, and William Barrett

**Social Security Number:** 510-58-4508

**Education:**

1975

Bishop LeBlond High School  
St. Joseph, Missouri

1979 B.A.

Vanderbilt University  
Nashville, Tennessee

1984 M.D.

University of Kansas Medical School  
Kansas City, KS**Postdoctoral Training:**

1984-1985

Intern in General Surgery - Saint Luke's  
Hospital - Kansas City, Missouri

1985-1989

Resident in Otolaryngology-Head & Neck Surgery,  
Massachusetts Eye and Ear Infirmary - Harvard University,  
Boston, Massachusetts

1989-1990

Fellow in Otolaryngology/Neurotology - The Otology  
Group, P.C., Nashville, Tennessee**Licensure:**Nebraska 18188  
Iowa 32299 (inactive)**Board Certification:**American Board of Otolaryngology, 1989  
Diplomat, National Board of Medical Examiners

**Honors and Awards:**

Listed in "Best Doctors in America" Woodward/White, Aiken S.C.  
Graduated cum laude from Vanderbilt University  
Ciba Geigy Award, 1984  
Alpha Omega Alpha, 1984  
Delegate Young Physicians Section - American Medical Association 1996-1998

**Teaching Background:**

1993- Volunteer Faculty – Clarkson Family Medicine Program  
1985-1989 Clinical Fellow in Otolaryngology, responsible for teaching Harvard medical students

**Professional Organization Memberships:**

American Medical Association  
American Academy of Otolaryngology-Head and Neck Surgery  
Fellow American College of Surgeons  
American Tinnitus Association  
American Neurotology Society  
Otosclerosis Study Group  
Metropolitan Omaha Medical Society  
Nebraska Medical Association  
Nebraska Academy of Otolaryngology  
William F. House Society  
The Ear Foundation Alumni Association  
Prosper Meniere Society

**Hospital Appointments:**

Previous:  
Baptist Hospital - Nashville, Tennessee  
Meharry Medical Center - Nashville, Tennessee  
St. Joseph Hospital – Omaha, Nebraska  
Bryan Memorial Hospital – Lincoln Nebraska  
Immanuel Hospital – Omaha, Nebraska  
Boys Town National Research Hospital - Omaha, Nebraska

Current:  
Bergan Mercy Hospital - Omaha, Nebraska  
Bishop Clarkson Hospital/The Nebraska Medical Center - Omaha, Nebraska  
Children's Hospital - Omaha, Nebraska  
Methodist Hospital - Omaha, Nebraska  
Memorial Hospital - Fremont, Nebraska

**Committees – Positions (Past & Present) x**

Board of Directors – NE Medical Association  
 Vice Speaker House of Delegates – NE Medical Association, 2004 -  
 Board of Directors – Metro Omaha Medical Society  
 President – Metro Omaha Medical Society 2003  
 President Elect – Metro Omaha Medical Society 2002  
 Nebraska Delegate to the Young Physicians Section - AMA 1996-1998  
 Medical Executive Committee – Children's Hospital 2003-2006  
 Metropolitan Omaha Medical Society Delegate - Nebraska Medical Association 1993-Present  
 Commission on Society Affairs Chairman - Metropolitan Omaha Medical Society and Nebraska Medical Society 1996-2002  
 Credentials, QI, Peer Review Committee – Paramount Group – PPA 2001  
 Alternate Delegate – AMA 2001  
 Hope Medical Outreach Executive Board 2003-2004  
 Executive Committee - Metro Omaha Medical Society  
 Nebraska Medical Association - Legislative Committee  
 Nebraska Medical Association - Society Affairs Committee  
 Caucus Chairman - Metro Omaha Medical Society to the NMA 2000 - 2002  
 Chairman Surgical Services - Children's Hospital 1997 - 1999  
 Universal Newborn Hearing Screening Committees at Methodist Hospital and Nebraska Health System  
 State of Nebraska Dept of Health & Human Services - Committee on Development & Implementation of Universal Newborn Hearing Screening Program

**Civic Involvement**

Board of Directors – Omaha Chamber of Commerce  
 Board of Directors – Omaha Safety Council 2004 -  
 Board of Directors – Catholic Charities – Omaha NE 2004-  
 Archbishop's Committee for Development  
 Benefactor - Conception Abbey Cathedral Renovation  
 Lector - Christ the King Church  
 Chairman - Christ the King Educational Trust Dinner 2000  
 Aksarben Buyers Club - Aksarben 4-H Show  
 Floor committee Aksarben Ball  
 Omaha Hearing School Board – Past President  
 West Omaha Rotary – Past Secretary  
 Equestrian Order – Knights of the Holy Sepulcher



**Scientific Presentations:**

American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Chicago, IL, "Hamartomas - Developmental Tumors of the Head and Neck".

Triological Society (Eastern Section), Toronto, Canada, January, 1989 "Radiographic Diagnosis, Surgical Treatment, and Long Term Follow-up of Cholesterol Granulomas of the Petrous Apex".

Temporal Bone Dissection Course, The EAR Foundation, Nashville, TN, October, 1989 "Tympanic Membrane Grafting Techniques".

Chronic Ear Surgical Dissection Course, The EAR Foundation, Nashville, TN, December, 1989 "Complications of Otitis Media".

Chronic Ear Surgical Dissection Course, The EAR Foundation, Nashville, TN, February, 1990 "Intact Canal Wall Tympanoplasty".

Temporal Bone Dissection Course, The EAR Foundation, Nashville, TN, March, 1990 "Ossicular Reconstruction".

Temporal Bone Dissection Mini Course, The EAR Foundation, Nashville, TN, April, 1990 "Controversies in Otology".

American Neurotology Society, Palm Beach, FL, April, 1990 "An Analysis of the Retrolabyrinthine Versus the Retrosigmoid Vestibular Nerve Section".

Triological Society (Middle Section Meeting), Milwaukee, WI, January, 1991 "Postoperative Radiographic Evaluation After Acoustic Neuroma and Glomus Jugulare Tumor Removal".

North American Skull Base Society Meeting, Orlando, FL, February, 1991 "Neurotological Skull Base Surgery for Lateral Skull Base Tumors With Intracranial Extension".

American Otologic Society, Waikoloa, Hawaii, May, 1991 "Transcochlear Transtentorial Approach for Removal of Large Cerebellopontine Angle Meningiomas".

American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Kansas City, MO, September, 1991. Instructional course "Laser Applications in Otology-Neurotology".

American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Kansas City, MO, September, 1991. John Conley Lecture - "What I Would Do Differently If I Were Going Into Practice Today".

Temporal Bone Dissection Course, The EAR Foundation, Nashville, TN, October, 1991 "Evaluation and Treatment of Facial Paralysis - Controversies in Otology."

Triological Society (Middle Section Meeting), Cleveland, OH, January, 1992 "Treatment of an Acoustic Neuroma in an Only Hearing Ear: Case Report and Consideration for the Future.

Temporal Bone Dissection Course, Midwest Ear Institute, "Chronic Ear Surgery", Kansas City, MO, May, 1992.

American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Washington, DC, September, 1992. Instructional course "Laser Applications in Otology-Neurotology".

American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Minneapolis, MN, October 4-6, 1993. Instructional course "Laser Applications in Otolaryngology-Neurotology".

Interscience Conference on Antimicrobial Agents and Chemotherapy - Poster presentation. "Middle Ear Fluid Concentrations of Cefixime in Acute Otitis." Orlando, Florida, October 4-7, 1994.

Nebraska Academy of Family Physician Annual Meeting - "The Evaluation and Treatment of Newborn Hearing Loss." Omaha, NE March 31, 2005

American Neurotology Society - "Hands-On Hearing Aids: What the Otolaryngologist Needs to Know." Los Angeles, CA, September 24, 2005

### **Scientific Publications:**

Thedinger BA, Nadol JB, Montgomery WW, Thedinger BS, Greenburg JJ: "Radiographic Diagnosis, Surgical Treatment, and Long Term Follow-up of Cholesterol Granuloma of the Petrous Apex", Laryngoscope, **99**:896-907, 1989.

Rauch SD, Merchant SN, Thedinger BA: "Meniere's Syndrome and Endolymphatic Hydrops: A Double Blind Temporal Bone Study", Ann Otol Rhinol Laryngol, **98**(10), 873-883, 1989.

Jackson CG, Cueva RA, Thedinger BA, Glasscock ME: "Conservation Surgery for Glomus Jugulare Tumors: The Value of Early Diagnosis", Laryngoscope, **100**(10):1031-1036, 1990.

Glasscock ME, Thedinger BA, Cueva RA, Jackson CG: "An Analysis of the Retrolabyrinthine Versus the Retrosigmoid Vestibular Nerve Section" Otolaryn. Head & Neck Surg, **104**(1): 88-95, 1991.

Jackson CG, Cueva RA, Thedinger BA, Glasscock ME: "Cranial Nerve Preservation in Lesions of the Jugular Foramen". Otolaryngology-Head & Neck Surgery, **105**(5), 687-93, 1991.

Thedinger BA, Glasscock ME, Cueva RA & Jackson CG: "Postoperative Radiographic Evaluation After Acoustic Neuroma and Glomus Jugulare Tumor Removal" Laryngoscope, **102**(3): 261-266, 1992.

Thedinger BA, Glasscock ME, Cueva RA: "Transcochlear Transtentorial Approach for Removal of Large Cerebellopontine Angle Meningiomas": Accepted for publication, American Journal of Otolaryngology, 1991.

Bhatt S, Halpin C, Wen Hsu, Thedinger BA, Levine RA, Tuomanen E, Nadol JB: "Hearing Loss on Pneumococcal Meningitis: An Animal Model", Laryngoscope, **101**(12), 1285-1292, 1991.

Thedinger BA, Cheney, ML, Montgomery WW, Goodman M: "Leiomyosarcoma of the Trachea", Ann Otol Rhinol Laryngol, **100**: 337-340, 1991.

Cueva, RA, Thedinger, BA, Harris, JP, Glasscock, ME: "Electrical Promontory Stimulation in Patients With Intact Cochlear Nerve and Anacusis Following Acoustic Neuroma Surgery", Accepted for publication, The Laryngoscope, 1992.

Thedinger, BA, Cueva, RA, Glasscock, ME: "Treatment of an Acoustic Neuroma in an Only Hearing Ear - Case Report and Consideration for the Future. Laryngoscope, **103** (9): 1992

Thedinger, BS, Thedinger, BA: "Analysis of Patients with Persistent Dizziness After Vestibular Nerve Section", Ear, Nose & Throat Journal, April, 1998



Davis, Thomas C, Thedinger, B. A., Greene, G. M.: "Osteomas of the Internal Auditory Canal: A Report of Two Cases accepted for publication The American Journal of Otology, 21 (6): 852-856, 2000. <sup>6</sup>

**Scientific Publications - Textbooks:**

Glasscock ME, Cueva RA, Thedinger BA: The Vertigo Handbook, Raven Press, New York, 1990.

**Post Graduate Courses Attended:**

Iowa Head and Neck Dissection Course, University of Iowa, Iowa City, IA, June, 1987.

American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Chicago, IL, September, 1987.

Second International Symposium on the Pathogenesis, Diagnosis, and Treatment of Meniere's Disease, Harvard University, Boston, MA, June, 1988.

Temporal Bone Dissection Course, The House Ear Institute, Los Angeles, CA, October, 1988. Triological Society (Eastern Section), Toronto, Canada, January, 1989.

Amplified Hearing Devices Update, The EAR Foundation, Nashville, TN, November, 1989.

Second International Conference on Cochlear Implants in Children, Indiana University, Indianapolis, IN, January, 1990.

American Neurotologic Society, Palm Beach, FL, April, 1990.

American Academy of Otolaryngology - Head and Neck Surgery Annual Meeting, San Diego, CA, September, 1990.

Kansas City Society of Ophthalmology and Otolaryngology, Kansas City, MO, December, 1990.

Triological Society (Middle Section Meeting), Milwaukee, WI, January, 1991.

North American Skull Base Society Meeting, Orlando, FL, February, 1991.

Triological Society Annual Spring Meeting, Waikaloa, HI, May, 1991.

American Academy of Otolaryngology - Head and Neck Surgery Annual Meeting, Kansas City, MO, 1991.

Triological Society (Middle Section Meeting), Cleveland, OH, January, 1992  
Third International Conference on Cochlear Implants in Children, Kansas City, MO, February, 1992.

Triological Society, American Otologic Society, American Neurotologic Society Spring Meetings, Palm Dessert, CA, April, 1992.

American Academy of Otolaryngology - Head and Neck Surgery Annual Meeting, Washington, DC, September, 1992.

American Academy of Otolaryngology - Head and Neck Surgery Annual Meeting, Minneapolis, MN, October 4-6, 1993

Triological Society (Middle Section Meeting) Rochester, MN, January 22, 1994

Fourth International Conference on Cochlear Implants in Children, New York, New York, February 4-6, 1994

Triological Society, American Neurotologic - Otologic Societies Spring Meetings, Palm Beach, FL, May, 1996

Triological Society, American Neurotologic - Otologic Societies, Spring Meeting, Palm Desert, CA, May 1995

American Medical Association YPS - Chicago IL June 1996

American Academy of Otolaryngology Annual Meeting September 28 - October 1, 1996 Washington DC

American Neurotology Society Meeting September 28, 1996, Washington DC

American Medical Association YPS Atlanta GA - December, 1996

Triological Society Middle Section, Kansas City, MO January 26-27, 1997

American Academy of Otolaryngology Annual Meeting September 9-12, 1997 San Francisco, CA

American Neurotology Society Meeting September 9, 1997, San Francisco, CA

American Academy of Otolaryngology Annual Meeting September 1998 San Antonio, TX

American Neurotology Society Meeting September, 1998 San Antonio TX

Triological Society - American Neurotologic Society - American Otological Society Meeting - Palm Desert CA, May, 1999

American Academy of Otolaryngology Head & Neck Surgery Annual Meeting American Neurotologic Society Meeting New Orleans LA September 25-28, 1999

American Neurotology Society Meeting September 25, 2000, Washington D.C.

American Academy of Otolaryngology - Head and Neck Surgery Annual Meeting September 25-28, Washington D.C. 2000

AMA Annual Meeting, June 2001

AMA Advocacy Meeting, March 2002

American Neurotology Society, AAO-HNS Meeting, September 2002

AMA Advocacy Meeting, Washington D.C., March 2003

AMA Annual Meeting, Chicago, June 2003

North Central Medical Conference "Emerging Issues" Minneapolis MN November 1-2, 2003

COPIC Risk Management, Omaha November 4, 2003

UCLA Hands-On Comprehensive Stereotactic Radiosurgery Bel Air CA April 13 - 15, 2004

Trilogical Society, American Neurotological Society, American Otological Society Scottsdale AZ May 1-2, 2004

Trilogical Society, American Neurotological Society, American Otological Society San Diego CA May 3-6, 2007

Trilogical Society, Middle Section Chicago IL Jan 19-20, 2008

American Academy of Otolaryngology – Head & Neck Surgery, American Neurotologic & Otologic Society Meeting, New York, New York, September 18-22, 2004

American Medical Association, Interim Meeting Atlanta GA December 4-6, 2004

American Neurotology Society and the Annual American Academy of Otolaryngology – Head and Neck Surgery Meetings, Los Angeles, CA, September 24 -27, 2005

**Lectures to Hospital Staff and Others:**

**Medical Staff and Organization Lectures**

Occupational Health Nurse Association, Massachusetts Eye and Ear Infirmary, Boston, MA, March, 1987, "Ear Emergencies".

Bill Wilkerson Hearing and Speech Center, Nashville, TN, April, 1990, "The Medical and Surgical Treatment of Meniere's Disease".

Department of Neurology - Neurosurgery Grand Rounds, Methodist Hospital, Omaha, NE, October, 1990 "ABR and CPA Tumors".

Creighton University School of Medicine Lecture "Facial Nerve", Introduction to Clinical Medicine Course, Omaha, NE, October, 1990 & 1991.

AMI St. Joseph Hospital, Operating Room Nursing Staff Grand Rounds, Omaha, NE, "Acoustic Neuroma", November, 1990.

University of Nebraska Medical Center, Department of Otolaryngology Grand Rounds, "Hearing Preservation and CPA Tumors", November, 1990

University of Kansas Medical School, Kansas City, KS, "Ear Anatomy", December, 1990.

Creighton University School of Medicine, Neurology Department Grand Rounds, Omaha, NE, January, 1991.

Creighton University School of Medicine, Medicine Department Grand Rounds, Omaha, NE, "Evaluation of the Dizzy Patient", March, 1991.

University of Nebraska Dental School, Lincoln, NE, May, 1991 "Otologic Disorders in the Craniofacial Child".

Creighton University School of Medicine, Surgery Grand Rounds, Omaha, NE, May, 1991 "Otologic/Neurotologic Surgery".

Clarkson Hospital, Family Practice Grand Rounds, September, 1991, "Audiometry".

Mary Lanning Hospital Medical Staff Grand Rounds, Hastings, NE, November, 1991 "Analysis of the Dizzy Patient".

Clarkson Hospital, Surgery Department Grand Rounds, Omaha, NE, December, 1991, "Otologic Neurotologic Surgery".



District 66 Public Schools, Audiology and Speech Pathology Department Meeting, Omaha, NE, March, 1992, "Hearing Loss and the Cochlear Implant".

Creighton University School of Medicine, Family Practice Department Grand Rounds, April, 1992, "The Dizzy Patient".

University of Nebraska Dental School, Lincoln, NE, May, 1992, "Otologic Disorders in the Craniofacial Child".

Children's Hospital Pediatric Grand Rounds, Omaha, NE, May, 1992, "Education of the Hearing Impaired and the Cochlear Implant".

Creighton-Nebraska Dept. of Neurology Grand Rounds, Omaha, NE, July, 1992, "Cochlear Implant - A New Treatment for Profound Bilateral Sensory Neural Hearing Loss".

University of Nebraska Medical School, Omaha, Nebraska, Fall 1992, First Year Medical Students - Introduction to Chemical Medicine - Group Facilitator.

Harvard University - Alumni Meeting of the Massachusetts Eye and Ear Infirmary, Department of Otolaryngology, Boston, MA, October, 1992, "Deaf Education and the Hearing Impaired Child".

Clarkson Hospital Family Practice Grand Rounds, Omaha, NE, November, 1992, "Facial Paralysis".

Good Samaritan Hospital Grand Rounds, Kearney, NE, January 1993, "Vertigo 101".

Bergan Mercy Hospital Grand Rounds, Omaha, NE, February, 1993, "New Methods for Evaluating and Treating the Vertiginous Patient".

Good Samaritan Hospital Grand Rounds, Kearney, NE, May, 1993, "What is a Cochlear Implant".

Greater Omaha Self Help for the Hard of Hearing monthly meeting Omaha, NE, September 14, 1993, "What's new in the ear field".

Metropolitan Community College School of Allied Health - Nursing, Omaha, NE, November 9, 1993, "Otitis Media and Otologic Dysfunction Related to Allergy/Immunology".

Department of Pediatrics Grand Rounds - Methodist Hospital, Omaha, NE, January, 1994, "Otoacoustic Emissions".

"The Noon Show" KMTV - Channel 3, Omaha, NE, February 9, 1994, "Hearing Loss, Amplification, Hearing Aids, and Cochlear Implants".

Oncology Conference - Head and Neck Tumors, Bergan Mercy Hospital, Omaha, NE, February 18, 1994.

"Three in the Morning Show" KMTV - Channel 3, Omaha, NE, March 9, 1994, "Discussion of Otitis Media, Tubes, and Live Surgery of Bilateral Myringotomy and Tubes".

University of Nebraska Dental School, Lincoln, NE, March 16, 1994, "Otologic Management in Children with Craniofacial Anomalies".

Clarkson Hospital Health & Wellness Club, "Hearing Loss - What's new in the evaluation and treatment". September 1994.

University of South Dakota Department of Communication, "Update on Cochlear Implants in Adults and Children Seminar". Vermillion, South Dakota, September 24, 1994.

Midwest Clinical Society, "Facial Paralysis Evaluation and Treatment", October 5, 1994.

Grand Rounds Bergan Mercy Hospital "When to be Concerned About a Hearing Loss", September 15, 1995

Grand Rounds Clarkson Family Practice "Otologic - Vestibular Disorders", January 18, 1996

Grand Rounds Children's Hospital "New Algorithm for the Treatment of Otitis Media", January 26, 1996

Clarkson Health & Wellness Club "Hearing Aids and Hearing Loss", February 8, 1996

OPPD Supervisors Meeting "Noise, Ears, Hearing Protection", February 13, 1996

Pfizer Lecture "New Algorithm for the Treatment of Otitis Media", February 14, 1996

University of Nebraska Audiology Department "Otology for the Audiologist", February 22, 1996

Grand Rounds Annual Asthma Lecture Bergan Mercy Hospital, "Otitis Media with Effusion and Asthma", March 8, 1996

Traumatic Brain Injury Seminar "Balance Disorders Following Head Injury" November 22, 1996, Omaha NE

University of Nebraska Audiology Department - "Otology-Neurotology for Audiologists" Lincoln NE, November 26, 1996

Alegent Health Immanuel Medical Center - Primary Care Update "Ear Emergencies & Dizziness" Omaha, NE - February 28, 1997

Clarkson Family Medicine "Vertigo" - March 7, 1997

Clarkson Family Medicine "Myringotomy/Adenoidectomy in Otitis Media" - March 21, 1997

Grand Rounds Children's Hospital "Universal Newborn Hearing Screening" July 21, 1998

Clarkson Family Medicine "Common Otologic Problems" September 15, 1998

Methodist Hospital Family Practice Conference "Making Sense of the Dizzy Patient, November 6, 1998

Perinatology Conference - Good Samaritan Hospital, Kearney NE "Implementation of a Universal Newborn Hearing Screening Program", September 16, 1999

Methodist Hospital - Neurology Symposium October 27, 2000

Clarkson Family Practice Grand Rounds - Newborn Hearing Screening, November 1, 2000

Creighton University - Neurology - Neuroophthomology Grand Rounds, Vestibular Disorders and Nystagmus, November 3, 2000

University of Nebraska Barclay Center Audiology Grand Rounds - New Theories and Treatment of Tinnitus, November 2000

Clarkson Family Medicine - Otologic - Vestibular Disorders, June 2001



Methodist Hospital – Neurology Symposium – Treatment of the Dizzy Patient, October 2002

Good Samaritan Hospital – Grand Rounds – Vestibular Disorders September 2003

Methodist Hospital Neurology Symposium – Vertigo/Dizziness, October 16, 2003

NE Chapter of Academy of Pediatrics – Organized Medicine, October 17, 2003

Kiwanis Club – New Hearing Aid Technology, October 21, 2003

Chamber of Commerce Executive Institute Program – Healthcare in Omaha, November 4, 2003

Clarkson Family Medicine Grand Rounds – “Ear Problems” September 15, 2004

Grand Rounds Children’s Hospital – Early Intervention and Management of Hearing Loss in Children – October 29, 2004

Grand Rounds – Prairie Pediatrics Sioux City IA – Early Intervention and Management of Hearing Loss in Children November 3, 2004

Methodist Hospital Neurology Symposium Vestibular Disorder November 18, 2004

Grand Rounds – Good Samaritan Hospital, Kearney, NE September, 30, 2005 – An Otology Potpourri.

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# EAR SPECIALISTS

O M A H A

May 6, 2010

**Britt A. Thedinger, M.D., F.A.C.S.**  
Board Certified - Fellowship Trained

Otology • Neurotology  
Skull Base Surgery  
Hearing Instruments

Dianne D. DeLair  
Staff Attorney  
Nebraska Advocacy Services  
134 S 13<sup>th</sup> Street, Suite 600  
Lincoln NE 68508

Re: Michael Argenyi

Dear Ms. DeLair:

It was indeed a pleasure of mine to meet and evaluate Mr. Argenyi today. He is a delightful 23 year old gentleman who presents with a long-standing history of hearing loss since infancy. He was first diagnosed at age eight months. He underwent placement of a right cochlear implant back in September of 2004. A left cochlear implant was placed in June of last year.

His otologic examination was normal. His cochlear implant incisions are well healed. He was wearing both implants.

We did proceed with various audiological testing. Pure tone testing revealed excellent responses throughout all the speech frequencies at a borderline to mild hearing loss level. Regarding HINT scores, he had 79 percent discrimination on the right and 55 percent on the left. With binaural cochlear implants in place, he had 67 percent speech discrimination. With the FM system in place, he had HINT scores of 62 percent in quiet and 38 percent with background noise.

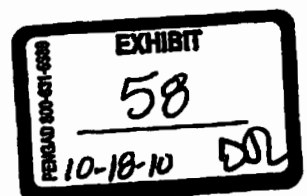
It does appear that the FM system does not provide any significant benefit and today's results show that it actually reduces his discrimination ability.

He tells me that he had his implants reprogrammed before starting medical school last fall. I recommended he continue to have his processors reprogrammed at least once a year.

<b>Main Office</b>	<b>Fremont Office</b>	<b>Bellevue Office</b>
9202 West Dodge Rd #200	415 East 23 <sup>rd</sup> St. #A	3512 Samsen Way #130
Omaha, NE 68114-3343	Fremont, NE 68025-2609	Bellevue, NE 68123

402-933-EARS (3277) • 800-228-EARS (3277) • FAX: 402-933-2216

Received Time May. 9. 2010 10:00AM No. 0106



MAY-09-2010 10:05

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I would be more than happy to address any other questions if they arise.

With warm personal regards,

Brian A. Thedinger, M.D., F.A.C.S.

BAT:mms

Please retain this for your records as no mail correspondence will follow.

Received Time May. 9. 2010 10:00AM No. 0106

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